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Oregon
Theodore R. Kulongoski, Governor

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September 30, 2010

Kristine Koch
Remedial Project Manager
U.S. Environmental Protection Agency
1200 Sixth Avenue, Ste 900, M/S ECL-115
Seattle, WA 98101-3140

RE: Milestone Report for Upland Source Control at the Portland Harbor Superfund Site

Dear Kristine,

Please find enclosed two copies of the DEQ "*Milestone Report for Upland Source Control at the Portland Harbor Superfund Site*" dated September 2010. The report will also be posted on DEQ's web site within the next two weeks.[1] DEQ will provide hard copies to project partners upon request.

DEQ's "*Update on Stormwater Source Control at the Portland Harbor Superfund Site*" dated September 2010 is also enclosed. This new update describes DEQ's strategy for achieving stormwater source control and the status and timeline for completing this work.

DEQ continues to be an active partner with EPA in the Portland Harbor project on a number of fronts. In addition to the many source control milestones highlighted below, we continue to be an active partner to EPA in its important work completing the in-water the remedial investigation (RI), feasibility study (FS), and record of decision (ROD); in addition to our support for EPA's early actions and ongoing Natural Resource Damage Assessment (NRDA) work.

As you will see below and in the report, DEQ continues our work with potentially responsible parties (PRPs) in the Harbor, and continues to progress our efforts to identify, evaluate and control sources of contamination in Portland Harbor. Several important source control removal actions have either been recently completed, selected, or are being considered for the near future. In addition to moving forward with source control measures at a number of sites, our focus over this past year has been to ensure each site has a clear path forward to evaluating and controlling sources. Each DEQ project manager identified source control goals at each site and established clear actions, timelines, and agreements to complete them. As a result, we feel confident that all

[1] Milestone Reports are available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

significant sources will be controlled prior to or shortly after EPA's Record of Decision, now anticipated in 2012 or perhaps later.

**Significant Achievements**

Some of the more significant achievements we've made in Portland Harbor source control in the past year include:

-**Evraz Oregon Steel Mills**- Two separate source control efforts are moving forward at the EOSM site. 1st, stormwater is being addressed through a combination of best management practices and end-of-pipe treatment. Phase I of the end-of-pipe treatment, addressing stormwater flow to the northern facility outfall, was installed in 2007 and underwent pilot testing in 2007/2008. Based on the results of the pilot test, the system was expanded to capture stormwater flow going to the central facility outfall in 2008. A Phase II pilot study was conducted in 2009. EOSM will conduct testing to evaluate any toxicity associated with the coagulant they are using followed by a loading evaluation to assess contaminant releases to the Willamette River via stormwater. EOSM is hoping to complete both studies in the 2010/2011 water year, and determine if any further stormwater source control action is necessary. 2nd, riverbank treatment source control measures are in re-design largely to resolve stakeholder concerns regarding mitigation, habitat conservation and restoration, and to incorporate bioengineering components. EOSM plans to re-submit their 404 Permit application in 1st quarter 2011, re-engage natural resource trustee stakeholders in the new design, and construct the riverbank source control measure in 2012 or 2013.

-**Schnitzer Steel**- Schnitzer Steel proposed a stormwater management plan in fall 2008. The plan will provide comprehensive management of stormwater including both re-use as on-site process water and end-of-pipe treatment. Phase 1A of the plan calls for abandoning a number of stormwater outfalls, collecting stormwater from most of the site, routing the stormwater thru screen filters to a storage tank, and then either re-using the water or discharging the water under an NPDES permit. The storage tank discharges to the river will be monitored and compared to JSCS SLVs. Additional treatment will be added if necessary. Phase 1A was completed late 2009. Phase 1B consists of paving the Phase 1A construction area. Phase 2 will capture stormwater from several additional on-site drainage basins and route the stormwater to the new filtration and storage system. Phase 2 stormwater improvements are expected to be constructed in fall 2010 and summer 2011. Stormwater basins not captured by the on-site end-of-pipe treatment will be evaluated by the SCE process.

-**Arco/BP**- A new permanent seawall sheetpile wall was installed in summer 2007. The sheetpile wall will enhance existing hydraulic control of contaminated groundwater. A riverbank soil and near-shore sediment removal and capping was completed in fall 2008. Approximately 16,000 cubic yards (cy) of petroleum-contaminated soil/sediment were removed and shipped offsite for disposal. The project was completed in summer 2009 by removing the in-river temporary sheetpile wall, final site grading, and planting.

-**Gasco**- NW Natural's Gasco site (which includes NW Natural's manufactured gas plant contamination on the Siltronic site) is a High Priority site for upland source control. The distribution and magnitude of upland contamination at the Gasco site is extensive and very significant. Based on an October 2007 Focused Feasibility Study (FFS), DEQ selected a SCM combination consisting of a vertical barrier wall and groundwater pump-and-treat system in the Gasco former tar pond area and pump-and-treat elsewhere along the shoreline. NW Natural recently completed a number of studies to support the design

of this SCM. Based on their studies, NW Natural recommended a revised SCM in summer 2009 for the former tar pond area consisting of only the pump-and-treat component. DEQ has a number of concerns with NW Natural's recommended SCM..., particularly that it will exacerbate exiting conditions by potentially mobilizing manufactured gas plant waste (dense non-aqueous phase liquid) without capturing it. In June 2010, DEQ directed NW Natural to move forward with source control of dissolved phase contamination along approximately 1,300 feet of shoreline and defer source control in the former tar pond area to the upland feasibility study so that source control could be considered comprehensively. DEQ and NW Natural are currently in formal dispute resolution over source control in the former tar pond area. We expect to resolve the dispute in fall 2010.

-**Siltronic**- An amended FFS was submitted December 2007 recommending an enhanced in-situ bioremediation (EIB) SCM for the Siltronic chlorinated solvent groundwater plume. DEQ selected EIB to be applied in the release area. Siltronic completed application of EIB treatment media in the source area in summer 2008, has recently proposed expanding use of EIB further upgradient of the release area, and is currently monitoring results from the SCM.

-**Arkema**- Arkema is working on three separate upland source control efforts at their site. 1st, Arkema submitted an FFS for groundwater/NAPL in summer 2008. DEQ selected a slurry wall/groundwater extraction system as the SCM in 2009, and the SCM is in design. We anticipate SCM construction to begin in summer 2011. 2nd, Arkema submitted a stormwater FFS in summer 2008, DEQ selected a stormwater SCM earlier this year and Arkema entered a DEQ Water Quality Mutual Agreement and Order in July 2010 to design, construct and monitor a new stormwater system. The stormwater SCM will consist of berming the perimeter of the site to prevent off-site overland flow, temporarily capping higher-level contaminated soil, decommissioning the existing collection and conveyance system including 3 of the 4 existing outfalls, installing a new collection/conveyance system which will route stormwater to a detention pond to reduce the suspended load, and discharging stormwater from the pond through a filter system to the river. Stormwater SCM construction is expected to begin in 2011 and conclude by the end of 2011. 3rd, Arkema evaluated their riverbank and the threat that portion of the site poses to the river. Riverbank source control is anticipated to be incorporated into the EPA-lead in-water Early Action at Arkema. Arkema will evaluate riverbank SCM options in 2010-11.

-**Rhone-Poulenc**- The responsible party at Rhone Poulenc, SLLI, is working on three major upland source control/evaluation efforts at their site. 1st, SLLI submitted a comprehensive SCE report in early-2008, DEQ reviewed the report, SLLI will revise the report after collecting significant additional hydrogeologic information to inform the conceptual site model, and submit the revised report in October 2010. 2nd, SLLI pilot tested several SCMs to treat and/or control their most significant groundwater plume threatening the river. SLLI has completed an extensive, long-term groundwater pumping test to support the design of their North Front Avenue SCM which targets contaminated groundwater moving in the highly conductive fractured basalt zone. The pumping test includes a number of extraction wells that could largely comprise the SCM. The pumping test concluded in August 2010. Construction of any supplemental portions of the SCM is anticipated for early 2011. 3rd, SLLI removed accumulated sediment from Outfall 22B stormwater lines and grouted the lines to at least partially prevent contaminated

groundwater from invading the lines. In the second half of 2009, SLLI cleaned out the lines and installed impermeable liners in the stormwater lines to further prevent groundwater invasion. In addition to these three ongoing source control efforts, SLLI: 1) spent two field seasons removing drums and debris from the Doane Lake area, 2) completed an on-site Facility Structures Interim Remedial Action Measure (IRAM); 3) completed the Groundwater Extraction and Treatment System (GETS IRAM) in 2005 designed to capture alluvial zone groundwater in the Herbicide Area; and 4) started the West Doane Lake (WDL IRAM) in 2010 to stabilize and cap West Doane Lake sediments.

**Other Recent Achievements**

1) **Collaboration with the City of Portland-** DEQ continues to work collaboratively with the City to identify and evaluate stormwater discharges under the Joint Source Control Strategy. DEQ is working closely with the City of Portland to identify upland sources contributing contamination via both the City's municipal stormwater system and private stormwater systems (see Section 2.1 of the report).
2) **River Mile 11 east Focused Stormwater Investigation-** Round 3 Portland Harbor sediment data collected by the LWG identified sediments contaminated by polychlorinated biphenyls (PCBs) on the east side of the river between RMs 11 and 11.3. Subsequent in-river sediment sampling by the City identified elevated PCBs between RMs 11 and 11.5. The current conceptual model is that the sediment contamination is largely due to past releases from historic operations in the area, but that current stormwater and bank erosion pathways may still exist. To evaluate whether there are ongoing stormwater sources, the City implemented a sampling plan in three City stormwater basins discharging into the river between RM 11 and 11.3 (Basins 43, 44, and 44A). Source investigation efforts are presumed to be complete for Basins 44 and 44A and are still underway in the Outfall 43 basin. In Basin 44, PacifiCorp is currently implementing source investigation and control measures to address PCB-contaminated soils and to prevent contaminants from migrating offsite and to the river in stormwater runoff.
3) **City of Portland's "*Stormwater Evaluation Report*" (February 2010)-** In 2009, the City undertook a comprehensive evaluation of stormwater and sediment trap data collected from City outfall basins to evaluate additional source tracing needs and help shape future data collection objectives. The evaluation included data collected by the City as well as data collected by the LWG and Port of Portland in support of the in-water Remedial Investigation. The findings from this evaluation generally support the City's and DEQ's belief that all major sources within City outfall basins have been identified. However, the results also indicate that additional investigation may be warranted in a small number of basins where slightly elevated concentrations of certain contaminants could not be explained by the known sources/land uses in those basins. A status of the source identification efforts in the City outfall basins as of August 2010 is provided in the Milestone Report.
4) **Downtown Portland Sediment Characterization-** DEQ continues our work with the City of Portland and other partners to investigate sediment quality in the Willamette River upstream of the Portland Harbor in downtown Portland. The results of the initial investigation broadened our understanding of the previously existing limited sediment quality data, and allowed us to gain a better understanding of the nature and extent of

hazardous substances in the downtown reach. The first phase of the investigation is completed and summarized in a GSI's 2009 report "*Field and Data Report, Downtown Portland Sediment Characterization*". DEQ's evaluation of the results can be found in our 2009 report "*Downtown Portland Willamette River Sediment Evaluation-Preliminary Identification of Areas of Interest*". A focused second phase of the investigation was completed in early 2010. This Phase II sampling was completed to better prioritize areas of interest for follow-up action, lay the foundation for source identification investigations, and in some cases begin to assess contaminant extent. Results from the Phase II work are compiled in GSI's 2010 "*Field and Data Report, Downtown Portland Sediment Characterization Phase II*". All reports can be viewed at: http://www.deq.state.or.us/lq/cu/nwr/willametteriver.htm

**General Status**

DEQ believes we have identified all of the significant upland sources threatening the river in the Portland Harbor Study area. All of these sites are under agreement to complete SCE or develop and/or construct SCMs. Where progress has been lagging or delayed, DEQ worked to clarify source control expectations and timing, and provide guidance for expected work.

DEQ continues to primarily focus on completing SCEs and implementing SCMs at High Priority sites. While much work remains to be done, we've made significant progress in all the High Priority sites, and for the majority of the High Priority sites, the stormwater pathway is the only remaining contaminant migration pathway that needs to be evaluated. Furthermore, interim SCMs are in-place in 12 of the 16 High Priority sites.

**Focus for the Future**

The primary focus for the future will continue to be completing SCEs and implementing SCMs at the Portland Harbor High Priority sites. With our new stormwater guidance, and further refinement of the in-water RI, we should also be able to close out many stormwater pathway sites we are working on. Continued progress at stormwater sites, as well as the implementation of groundwater and bankline remedies will help inform broader source control tools and actions that will be required in order to achieve our shared objectives for a healthy river.

As you review the September 2010 Milestone Report, please contact me or Matt McClincy with any suggestions, comments, or questions.

Thank you for your continued assistance in coordinating EPA's support to DEQ on Portland Harbor source control work. Please let us know if you would like to convene a meeting with DEQ and interested EPA partners to discuss the September 2010 Milestone Report, including site prioritization and source control progress.

We anticipate submitting the next Milestone Report in March 2011.

Sincerely,

James M Anderson, Manager
Portland Harbor Section

cc: Matt McClincy, DEQ/NWR (without reports)
Chuck Harman, DEQ/NWR (without reports)
Dick Pedersen, DEQ/HQ (without reports)
Nina DeConcini, DEQ/NWR (without reports)
EPA Oregon Operations Office (full report)

# Milestone Report

## for Upland Source Control at the Portland Harbor Superfund Site

September 2010

Prepared by the Oregon Department of Environmental Quality


State of Oregon
**Department of Environmental Quality**

This document is posted on DEQ's web page at
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

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## Attachments

# 1.0 Introduction

On December 1, 2000, a section of the lower Willamette River within the City of Portland, the Portland Harbor, was added to the Superfund National Priority List (NPL). In February 2001, the Oregon Department of Environmental Quality (DEQ), United States Environmental Protection Agency (EPA), and other governmental parties[1] signed a Memorandum of Understanding (MOU) that provided a framework for cooperation in the investigation and cleanup of the Portland Harbor Superfund Site to optimize federal, state, tribal and trustee expertise and available resources.

Under the 2001 MOU, EPA was designated as the Lead Agency for investigating and cleaning up "in-water" contamination in the Harbor, i.e., contamination in the river water and underlying sediment using federal Superfund authorities. DEQ, using state cleanup authority, was designated as the Lead Agency for identifying and controlling "upland" sources of contamination, i.e., those sources of pollution adjacent to or near the river that may be contaminating river water or sediments. To coordinate in-water cleanup and upland source control work, the MOU directed DEQ and EPA to jointly develop a source control strategy that defines a process for identifying and controlling potential sources of contamination threatening the river.

DEQ and EPA finalized the Portland Harbor Joint Source Control Strategy (JSCS) in December 2005[2]. The overarching goal of the JSCS is to identify, evaluate and control sources of contamination that may affect the Willamette River in coordination with the objectives and schedule for the Portland Harbor remedial investigation and feasibility study (RI/FS). Upland source control is necessary to allow cleanup of the river to proceed without risk of significant recontamination. DEQ is currently implementing the JSCS in the Portland Harbor Superfund Site study area – approximately River Mile (RM) 1.9 to River Mile 11.8[3].

The JSCS requires DEQ to prepare a Milestone Report on a quarterly basis that summarizes the status of DEQ's upland source control work. The report submittal schedule has been changed to bi-yearly. This is the ninth Milestone Report. Milestone Reports are submitted to EPA, and provide the basis for potential meetings with EPA and our government partners to discuss site prioritization and source control progress. These reports also serve as documentation of progress on river-wide source control within Portland Harbor.

## 1.1 Organization of the Milestone Report

The Milestone Report is organized as follows.

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[1] The signatory partners to the MOU include the EPA, DEQ, Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of the Grand Ronde Community of Oregon, Confederated Tribes of Siletz Indians, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Nez Perce Tribe, National Oceanic and Atmospheric Administration, Oregon Department of Fish and Wildlife, and U.S. Department of the Interior.

[2] The JSCS is available on DEQ's web site at http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

[3] "River Mile" indicates the distance from the Willamette River's confluence with the Columbia River (i.e., River Mile 11.8 is 11.8 miles upstream of the confluence).

- Section 2.0: Identifying Potential Sources of Contamination in Portland Harbor – This section describes DEQ's work to identify potential sources of contamination to the Willamette River in Portland Harbor, including site discovery and site assessment activities.
- Section 3.0: Evaluating Potential Sources of Contamination to the River – This section describes DEQ's status and schedule for the evaluation of all confirmed or suspected upland sources of contamination to Portland Harbor, as summarized in Table 1.
- Section 4.0: Taking Measures to Control Sources and Making Source Control Decisions – This section describes the source control measures used at upland sites in Portland Harbor and the process for making source control decisions, including coordination with EPA and our government partners, and public involvement opportunities. Source control measures and decisions are summarized in Table 1.
- Section 5.0: Status of Ongoing and Completed Source Control Activities – This section describes the information presented in Table 1 that summarizes the status of ongoing and completed source control measures. This section also describes the specific status of the 16 High Priority and Preliminary High Priority sites (Table 2). This section also presents five specific source control goals designed to help DEQ focus our efforts to achieve the overarching goal of source control.
- Section 6.0: Issues Encountered in Source Control Work – This section describes issues affecting DEQ's ability to conduct source control work and identifies paths forward towards resolution.
- Section 7.0: Summary – This section summarizes the overall status of source control work in Portland Harbor, highlighting accomplishments, key issues and next steps for moving forward.
- Section 8.0: Obtaining Additional Information on Upland Source Control Work – This section indicates where additional information can be found on the status of source control work at upland sites in Portland Harbor.
- Section 9.0: Information on Table 1: Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor – This section provides helpful information for interpreting Table 1, including definition of key terms and acronyms used.

## 2.0 Identifying Potential Sources of Contamination in Portland Harbor

DEQ's strategy for identifying and investigating potential sources of contamination to Portland Harbor prior to the December 2000 Superfund Site listing was described in the March 2006 Milestone Report. Those site identification and investigation activities were initially focused on a six-mile stretch of the lower Willamette River (now known as the Initial Study Area) extending from the southern tip of Sauvie Island upstream to Swan Island, from approximately River Mile 3.5 to River Mile 9.2. For more information, please see the March 2006 Milestone Report or please contact DEQ's Portland Harbor project manager, Jim Anderson at (503) 229-6825 or anderson.jim@deq.state.or.us

## 2.1 Recent Site Discovery and Site Assessment activities

As would be expected, DEQ's site discovery/site assessment activities have decreased now that we've reached an intermediate stage of the upland source control effort and the significant sources are being addressed. This is not to say that additional site discovery work won't be necessary, it simply means that we are currently directing our energy toward completing site investigations and source control measures at existing Environmental Cleanup Site Information (ECSI) sites.

There are two main efforts that will help shape DEQ's future site discovery activities. One is the information contained in the Lower Willamette Group's (LWG) Draft Risk Assessment and Remedial Investigation documents and the ongoing process to develop the draft Feasibility Study. It's possible that information from these documents could identify specific areas where additional source identification is warranted.

The second effort involves discovering stormwater sites. New stormwater site discovery efforts tend to be targeted and are triggered by recently collected data. The majority of this work is conducted as a collaborative effort between the City and DEQ under the Intergovernmental Agreement (IGA) between DEQ and the City's Bureau of Environmental Services (BES), to identify, investigate, and control contaminant discharges to shared City stormwater conveyance lines. Over the past two years, the City has undertaken a comprehensive source investigation effort on the east side of the river between RM 11 and 11.3. The City is also undertaking additional source investigations in Outfall Basins 52, 52C and 53 based upon the findings presented in their February 2010 *Stormwater Evaluation Report*. These efforts are described below.

River Mile 11-East Source Investigations

Round 3 Portland Harbor sediment data collected by the LWG identified sediments contaminated by polychlorinated biphenyls (PCBs) on the east side of the river between RMs 11 and 11.3. Subsequent in-river sediment sampling by the City identified elevated PCBs between RMs 11 and 11.5. The current conceptual model is that the sediment contamination is largely due to past releases from historic operations in the area, but that current stormwater and bank erosion pathways may still exist. To evaluate whether there are ongoing stormwater sources, the City implemented a sampling plan in three City stormwater basins discharging into the river between RM 11 and 11.3 (Basins 43, 44, and 44A). Source investigation efforts are presumed to be complete for Basins 44 and 44A and are still underway in the Outfall 43 basin. In Basin 44, PacifiCorp is currently implementing source investigation and control measures to address PCB-contaminated soils and to prevent contaminants from migrating offsite and to the river in stormwater runoff.

City of Portland's *Stormwater Evaluation Report (February 2010)*

There are 38 City outfalls in Portland Harbor. As part of the City's 20-year combined-sewer overflows abatement program, to be completed by 2011, all or a portion of the stormwater discharging through fifteen City outfalls are being diverted to the wastewater treatment plant. For basins that will continue to discharge to the river, the City conducted basin evaluations to determine if there was potential for significant sources in the basins. If so, source tracing was conducted to identify sources that need to be controlled through either DEQ or City authorities.

In 2009, the City undertook a comprehensive evaluation of stormwater and sediment trap data collected from City outfall basins to evaluate additional source tracing needs and help shape future data collection objectives. The evaluation included data collected by the City as well as data collected by the LWG and Port of Portland in support of the in-water Remedial Investigation. The findings from this evaluation generally support the City's and DEQ's belief that all major sources within City outfall basins have been identified. However, the results also indicate that additional investigation may be warranted in a small number of basins where slightly elevated concentrations of certain contaminants could not be explained by the known sources/land uses in those basins.

A status of the source identification efforts in the City outfall basins as of August 2010 is provided below. This information is also presented in Figure 1.

| **August 2010 Status of Source Identification at City Outfalls in Portland Harbor** | |
|---|---|
| **No Significant Sources in Basin and Insignificant or Incomplete Pathway** | |
| 19 Outfalls | Outfall Designations: M-2, M-3, S-2, S-5, 10A, 11, 13, 14, 19A, 22D, 23, 24, 42, 44A, 47, 48, 49, 50, 52A |
| **Source Identification in Basin is Complete** | |
| 15 Outfalls | Outfall Designations: M-1, S-1, S-6, 15, 16, 17, 18, 19, 22, 22B, 22C, 46, 44, 45, 53A |
| **Additional Source Identification Needed or May be Needed in Basin** | |
| 4 Outfalls | Outfall Designations: 43, 52, 52C, 53 |

## 2.2 Downtown Portland Willamette River Sediment Investigation

DEQ continues our work with the City of Portland and other partners to investigate sediment quality in the Willamette River upstream of the Portland Harbor in downtown Portland. The results of the initial investigation broadened our understanding of the previously existing limited sediment-quality data, and allowed us to gain a better understanding of the nature and extent of hazardous substances in the downtown reach. The first phase of the investigation collected surface sediment and/or cores samples from nearly 80 locations.

The field work for the downtown reach sediment investigation was completed in June 2008. Results from this first phase are compiled in the GSI Water Solutions, Inc 2009 report "*Field and Data Report, Downtown Portland Sediment Characterization*". This report can be viewed at: http://www.deq.state.or.us/lq/cu/nwr/willametteriver.htm

DEQ completed a review of this first phase of the investigation. The results of the review are found in a 2009 DEQ report entitled "*Downtown Portland Willamette River Sediment Evaluation- Preliminary Identification of Areas of Interest.*" A focused second phase of investigation was completed in early 2010. This Phase II sampling was completed to better prioritize areas of interest for follow-up action, lay the foundation for source identification investigations, and in some cases begin to assess contaminant extent. Results from the Phase II

work are compiled in GSI's 2010 "*Field and Data Report, Downtown Portland Sediment Characterization Phase II*". All reports can be viewed at: http://www.deq.state.or.us/lq/cu/nwr/willametteriver.htm

DEQ is evaluating the investigation results for both phases of work to help assess area-wide contaminant levels and identify areas where source identification efforts are warranted.

Within the downtown reach, PGE is conducting an investigation of in-water sediment and upland source control between RM 13.1 -13.5 east. Two upland preliminary assessments and data reports from three upland investigations and the in-water sediment investigation have been completed in 2010. A remedial investigation covering both in-water and upland data is due in late-2010. This information will help determine potential remedial and source control actions.

The Zidell Waterfront property is located at the upstream edge of the downtown reach on the west side of the river beneath the Ross Island Bridge. The ZRZ Realty Company (Zidell Company) and other site operators conducted ship dismantling, ship building, welding, and other miscellaneous industrial activities at the site from approximately 1925 to the mid-1960s. The Zidell Company began on-site barge-building operations in 1968 and those activities continue today. Portions of the upland property are impacted by releases of metals, petroleum hydrocarbons, PCBs, asbestos, and other contaminants. The Zidell Company is working under a DEQ consent judgment to cleanup contaminated upland soil and Willamette River sediment adjacent to their property. The Zidell Company initiated upland soil cleanup this summer, and plans to begin sediment remediation summer 2011.

## 3.0 Evaluating Potential Sources of Contamination to the River

DEQ is investigating or directing source control work at over 60 upland sites in Portland Harbor. Preliminary investigation activities at these sites are designed to determine whether the site is a potential or ongoing source of contamination to the river. These investigations, or "source control evaluations," consider all potential, current and historic contaminant sources and current or reasonably likely future contaminant migration pathways for the contaminants to be transported to the river. Potential pathways include:

- Direct discharges – Pollutants from commercial, industrial, private or municipal outfalls have in the past and continue to be discharged directly to the Portland Harbor Superfund Site. Levels of contaminants in historic discharge streams were much greater than recent and current loads due to better environmental awareness and government controls (e.g., permits. Many current discharges are permitted (general or individual permits) under the Clean Water Act National Pollutant Discharge Elimination System (NPDES). Permitted discharges include industrial wastes, stormwater runoff, and combined-sewer overflows (CSOs)[4].
- Groundwater – Contaminated groundwater may enter the river directly via discharge through sediments, bank seeps, or it may infiltrate into storm drains/pipes, ditches or creeks that

[4] CSO events are untreated discharges of combined stormwater, sanitary sewage from residential, commercial, and industrial sources that overflow from the sewer system into the river during heavy rainfall periods when the amount of stormwater and sewage exceeds the capacity of the collection system.

discharge to the river. Contaminant migration may occur as non-aqueous phase liquids (NAPLs) or as chemicals dissolved in the groundwater itself.

- Stormwater – Contaminants may be carried to the river by water that runs off a site into storm drains after it rains, delivered to the river by stormwater pipes (including permitted and unpermitted stormwater discharges).
- Overland transport/sheet flow – The uncontrolled flow of water from a site to the river and the transport of other materials from a site may deliver contaminants to the river.
- Bank erosion/leaching – River bank soil, contaminated fill, waste piles, landfills and surface impoundments may release contaminants directly to the river through erosion, via soil erosion to stormwater, or by leaching to groundwater.
- Overwater activities – Contaminants from overwater activities (e.g., sandblasting, painting, unloading, maintenance, repair and operations) at riverside docks, wharves, or piers; discharges from vessels (e.g., gray, bilge, ballast waters); full releases; and spills may affect the river.

These potential contaminant migration pathways are evaluated for each site, and upland contaminant concentrations are screened against conservative screening level values (SLVs) protective of human health and the environment. Sites that are identified as significant current or potential sources of pollution to the river are characterized and prioritized. Based on the resulting priority, either further source control evaluation is completed or source control measures are initiated.

Table 1 provides a summary of confirmed and suspected upland sources of contamination to the river that DEQ is either actively working on or has finished source control work on by issuing a final source control decision. Table 1 also provides the basis for the determination that a site is a source of contamination to the river, the status of and schedule for source control evaluation, and the priority of the site for source control. The table includes the priority of each contaminant migration pathway for each site, as well as the overall priority of the site based on the pathway priorities.

High priority sites are identified in the table based on existing site information, and subsequent Milestone Reports will identify any new high priority sites as new information becomes available. Source control is expected to move forward at high priority sites without delay.

## 4.0 Taking Measures to Control Sources and Making Source Control Decisions

DEQ determines the need for source control measures at each upland site, in consultation with EPA, based on the completeness of contaminant migration pathways, exceedances of SLV, and other factors as appropriate. See p. 3-1 through 3-6 of the JSCS for more information about SLVs, and p. 4-1 through 4-10 of the JSCS for more information about the source control decision process.

### 4.1 Types of source control measures

Upland source control is an iterative process where early steps may be revisited and conclusions refined by information gathered later in the process. A combination of tools may be used to control a source, including but not limited to the following.

- Technical assistance – Technical assistance, often provided during inspections, provides technical information designed to help individual businesses bring their facilities into compliance with environmental regulations. DEQ's Hazardous Waste Program has and continues to provide technical assistance to facilities within the Portland Harbor Superfund Site area.
- Cleaning-up contaminated upland areas – Cleanup work addresses contaminated soil, groundwater, stormwater and other sources; and focuses on reducing or eliminating contaminant migration to the river. Common source control measures include removing highly contaminated soil areas, stabilizing or capping contaminated bank areas, treating or containing contaminated groundwater, and extracting contaminated sediment from storm sewer systems. Source control measures vary from site to site.
- Source control of active discharges – Tools to control active discharges include best management practices (BMPs), industrial process changes, pollution prevention practices, and technology-based effluent controls. Compliance is achieved voluntarily or through administrative actions, including permits or enforcement.
- Source control of stormwater – Stormwater source control is complex because storm drain systems capture discharges from many different sources (e.g., land use activities, runoff from contaminated sites, and infiltration of contaminated groundwater into the storm drain system). Stormwater regulation also involves state and local agencies implementing MS4 and 1200Z general stormwater permits. Because of this complexity, all of the tools described above are useful for stormwater source control and will be used as appropriate.
- Administrative actions and enforcement – Administrative actions include licenses, permits, deed restrictions, requirements for site development plans, and enforcement actions; which may be necessary when administrative actions are violated. Agencies rarely take enforcement actions without first conducting an inspection and documenting findings, requested changes, warnings and offers of technical assistance. When enforcement actions are warranted, they are usually taken in escalating order, starting with notices of violation, moving to enforcement or compliance orders requiring specific changes by a set date, and ending with monetary penalties, court action or DEQ's takeover of investigation or cleanup work. Formal cleanup actions performed under an order or decree use oversight and enforcement to ensure that appropriate actions are taken in a timely manner.

Table 1 summarizes source control decisions at upland sites, the basis for the determination that upland source control measures are necessary, a summary of the selected source control measure(s), and a schedule for implementing the source control measure(s). Figure 2-a-c displays most sites listed in Table 1.

### 4.2 DEQ coordination with EPA and partners on source control decisions

As the Lead Agency for identifying and controlling sources of upland contamination threatening the river in Portland Harbor, DEQ coordinates with EPA and our government partners on source

control work. This includes documenting, tracking and coordinating source control efforts as described in Sections 2.5 and 7 of the JSCS.

DEQ provides EPA and our partners an opportunity to review and comment on source control decisions prior to being finalized. These decisions typically fall into the following three categories.

- DEQ determined that a site is not a current or future significant source of contaminants to Portland Harbor and that no source control measures are required.
- DEQ selected the source control measures for a site.
- DEQ concluded that source control at a site is complete, or in the case of systems that require operation and maintenance (e.g., hydraulic containment), that the source control action is effective.

DEQ informs EPA and our partners of pending source control decisions and the schedule for review, and provides copies of source control decision documentation to EPA and partners upon request. EPA and partners have 30 days to provide comments to DEQ on source control decisions.

In addition to this regular review and comment process, some upland sites in Portland Harbor may warrant closer coordination between DEQ, EPA, and our partners for source control (e.g., the Gasco site and potential source control measures for the chlorinated solvent groundwater plume at the Siltronic site). In these instances, DEQ and EPA source control coordinators will develop project-specific coordination strategies.

### 4.3 Public involvement in source control decisions

DEQ Cleanup Program statutes and rules require that a public notice and comment opportunity be provided prior to DEQ's selection of a final site cleanup remedy and before DEQ determines that the cleanup is complete. For upland Portland Harbor cleanup projects, this means that DEQ issues a public notice and seeks public comments on the recommended final site cleanup strategy. Once public input is considered, DEQ's final decision is typically documented in a Record of Decision (ROD) for the site. For most sites, the upland DEQ ROD includes elements that address both source control for Portland Harbor and cleanup actions specific to areas of upland contamination that are not related to pollution in the Harbor.

Many of the source control measures implemented at upland sites are conducted prior to the selection of the final upland site-wide remedy. While public notice and comment is not required for these "interim" removal actions under DEQ statutes and rules, DEQ typically issues a public notice and seeks public comments when the action is likely to be a substantive piece of the final site remedy, or as the DEQ project manager determines is appropriate.

DEQ does not typically seek public comments for small-scale interim source control measures and time-critical actions. Project managers will, however, issue notices and/or press releases as appropriate to let the public know that the activity is being conducted.

## 5.0 Status of Ongoing and Completed Source Control Activities

Table 1 summarizes the status of ongoing source control activities; including source control evaluations (SCEs), source control decisions (SCDs), and source control measures (SCMs). Table 1 also provides information on source control activities completed to date, proposed SCM activities, and a target schedule for completion.

Table 1 also summarizes completed SCMs and provides the date that the SCM was completed, the date of EPA review and comment, and any operation and maintenance requirements associated with the SCM.

As of September 2010, the DEQ categorized 90 sites (see Table 1) into the following source control categories:

**High Priority Sites**- 11
**Preliminary High Priority Sites**- 5
**Medium Priority Sites**- 24
**Low Priority Sites**- 23
**Priority "To Be Determined" Sites**- 3
**Sites with Source Control Decisions**- 24

The status of High Priority and Preliminary High Priority sites is presented in Table 2. Twelve of the 16 High Priority sites currently have at least interim SCMs in place. Some of the more important actions in-place or anticipated at the High Priority sites include:

-**Evraz Oregon Steel Mills**- Two separate source control efforts are moving forward at the EOSM site. 1st, stormwater is being addressed through a combination of best management practices and end-of-pipe treatment. Phase I of the end-of-pipe treatment, addressing stormwater flow to the northern facility outfall, was installed in 2007 and underwent pilot testing in 2007/2008. Based on the results of the pilot test, the system was expanded to capture stormwater flow going to the central facility outfall in 2008. A Phase II pilot study was conducted in 2009. EOSM will conduct testing to evaluate any toxicity associated with the coagulant they are using followed by a loading evaluation to assess contaminant releases to the Willamette River via stormwater. EOSM is hoping to complete both studies in the 2010/2011 water year, and determine if any further stormwater source control action is necessary. 2nd, riverbank treatment source control measures are in re-design largely to resolve stakeholder concerns regarding mitigation, habitat conservation and restoration, and to incorporate bioengineering components. EOSM plans to re-submit their 404 Permit application in 1st quarter 2011, re-engage natural resource trustee stakeholders in the new design, and construct the riverbank source control measure in 2012 or 2013.

-**Schnitzer Steel**- Schnitzer Steel proposed a stormwater management plan in fall 2008. The plan will provide comprehensive management of stormwater including both re-use as on-site process water and end-of-pipe treatment. Phase 1A of the plan calls for abandoning a number of stormwater outfalls, collecting stormwater from most of the site, routing the stormwater thru screen filters to a storage tank, and then either re-using the water or discharging the water under an NPDES permit. The storage tank discharges to the river will be monitored and compared to JSCS SLVs. Additional treatment will be added if necessary. Phase 1A was completed late 2009. Phase 1B consists of paving the Phase 1A construction area. Phase 2 will capture stormwater from several additional on-site

drainage basins and route the stormwater to the new filtration and storage system. Phase 2 stormwater improvements are expected to be constructed in fall 2010 and summer 2011. Stormwater basins not captured by the on-site end-of-pipe treatment will be evaluated by the SCE process.

-**Arco/BP**- A new permanent seawall sheetpile wall was installed in summer 2007. The sheetpile wall will enhance existing hydraulic control of contaminated groundwater. A riverbank soil and near-shore sediment removal and capping was completed in fall 2008. Approximately 16,000 cubic yards (cy) of petroleum-contaminated soil/sediment were removed and shipped offsite for disposal. The project was completed in summer 2009 by removing the in-river temporary sheetpile wall, final site grading, and planting.

-**Gasco**- NW Natural's Gasco site (which includes NW Natural's manufactured gas plant contamination on the Siltronic site) is a High Priority site for upland source control. The distribution and magnitude of upland contamination at the Gasco site is extensive and very significant. Based on an October 2007 Focused Feasibility Study (FFS), DEQ selected a SCM combination consisting of a vertical barrier wall and groundwater pump-and-treat system in the Gasco former tar pond area and pump-and-treat elsewhere along the shoreline. NW Natural recently completed a number of studies to support the design of this SCM. Based on their studies, NW Natural recommended a revised SCM in summer 2009 for the former tar pond area consisting of only the pump-and-treat component. DEQ has a number of concerns with NW Natural's recommended SCM..., particularly that it will exacerbate exiting conditions by potentially mobilizing manufactured gas plant waste (dense non-aqueous phase liquid) without capturing it. In June 2010, DEQ directed NW Natural to move forward with source control of dissolved phase contamination along approximately 1,300 feet of shoreline and defer source control in the former tar pond area to the upland feasibility study so that source control could be considered comprehensively. DEQ and NW Natural are currently in formal dispute resolution over source control in the former tar pond area. We expect to resolve the dispute in fall 2010.

-**Siltronic**- An amended FFS was submitted December 2007 recommending an enhanced in-situ bioremediation (EIB) SCM for the Siltronic chlorinated solvent groundwater plume. DEQ selected EIB to be applied in the release area. Siltronic completed application of EIB treatment media in the source area in summer 2008, has recently proposed expanding use of EIB further upgradient of the release area, and is currently monitoring results from the SCM.

-**Arkema**- Arkema is working on three separate upland source control efforts at their site. 1st, Arkema submitted an FFS for groundwater/NAPL in summer 2008. DEQ selected a slurry wall/groundwater extraction system as the SCM in 2009, and the SCM is in design. We anticipate SCM construction to begin in summer 2011. 2nd, Arkema submitted a stormwater FFS in summer 2008, DEQ selected a stormwater SCM earlier this year and Arkema entered a DEQ Water Quality Mutual Agreement and Order in July 2010 to design, construct and monitor a new stormwater system. The stormwater SCM will consist of berming the perimeter of the site to prevent off-site overland flow, temporarily capping higher-level contaminated soil, decommissioning the existing collection and conveyance system including 3 of the 4 existing outfalls, installing a new collection/conveyance system which will route stormwater to a detention pond to reduce the suspended load, and discharging stormwater from the pond through a filter system to

the river. Stormwater SCM construction is expected to begin in 2011 and conclude by the end of 2011. 3rd, Arkema evaluated their riverbank and the threat that portion of the site poses to the river. Riverbank source control is anticipated to be incorporated into the EPA-lead in-water Early Action at Arkema. Arkema will evaluate riverbank SCM options in 2010-11.

-**Rhone-Poulenc**- The responsible party at Rhone Poulenc, SLLI, is working on three major upland source control/evaluation efforts at their site. 1st, SLLI submitted a comprehensive SCE report in early-2008, DEQ reviewed the report, SLLI will revise the report after collecting significant additional hydrogeologic information to inform the conceptual site model, and submit the revised report in October 2010. 2nd, SLLI pilot tested several SCMs to treat and/or control their most significant groundwater plume threatening the river. SLLI has completed an extensive, long-term groundwater pumping test to support the design of their North Front Avenue SCM which targets contaminated groundwater moving in the highly conductive fractured basalt zone. The pumping test includes a number of extraction wells that could largely comprise the SCM. The pumping test concluded in August 2010. Construction of any supplemental portions of the SCM is anticipated for early 2011. 3rd, SLLI removed accumulated sediment from Outfall 22B stormwater lines and grouted the lines to at least partially prevent contaminated groundwater from invading the lines. In the second half of 2009, SLLI cleaned out the lines and installed impermeable liners in the stormwater lines to further prevent groundwater invasion. In addition to these three ongoing source control efforts, SLLI: 1) spent two field seasons removing drums and debris from the Doane Lake area, 2) completed an on-site Facility Structures Interim Remedial Action Measure (IRAM); 3) completed the Groundwater Extraction and Treatment System (GETS IRAM) in 2005 designed to capture alluvial zone groundwater in the Herbicide Area; and 4) started the West Doane Lake (WDL IRAM) in 2010 to stabilize and cap West Doane Lake sediments.

DEQ developed five specific goals for our source control efforts. These goals will track DEQ source control efforts to achieve the overarching goal of source control: to identify, evaluate and control sources of contamination that may affect the Willamette River in coordination with the objectives and schedule for the Portland Harbor RI/FS.

The goals described below are aggressive goals that were based on an anticipated ROD date of 2010. While much progress has been made to reach these goals, some remain outstanding. Some of the reasons these goals have not been achieved include the complexity of the work, work load for both DEQ and upland responsible parties, and obstacles in implementing the work. While all the goals have not been met, DEQ believes these sites remain on-track to achieve source control at the High Priority sites by the time of the Portland Harbor ROD. The Portland Harbor ROD is now optimistically anticipated to be completed in late-2012. Dates for the goals below have been adjusted to better reflect the current status and the new anticipated ROD date.

**Goals and Status for High Priority Sites**

**Goal 1**- Source Control Evaluations (SCE) completed at all High Priority sites by 1/1/10.

**Goal 1 Status as of 9/10**

-2 of 16 SCEs completed

-2 of 16 SCEs currently under review by DEQ, to be completed in 2010
-5 of 16 SCEs to be completed in 2010
-Of the 7 remaining High Priority sites (16 minus 9) that are either not completed or are not on schedule to be completed by the end of 2010, stormwater is the only outstanding pathway to be completed in 4 of the 7 sites.

**Goal 2**- SCMs selected at all High Priority sites by 7/1/10.

**Goal 2 Status as of 9/10**

-Interim or final SCMs have been selected and have been implemented at 12 of 16 sites. These sites include: 1) EOSM (stormwater), 2) Schnitzer Steel (stormwater), 3) Kinder Morgan Linnton (groundwater ), 4) Exxon/Mobil (groundwater), 5) Arco/BP (groundwater and riverbank/beach), 6) MarCom South (overland runoff), 7) Siltronic (groundwater), 8) Rhone Poulenc (groundwater and stormwater), 9) Arkema (groundwater), 10) Willbridge (groundwater), 11) Gunderson (groundwater), and 12) City Stormwater (line cleanouts).

-Selection of SCMs at other High Priority sites is anticipated over the next 6-12 months. For instance, 1) DEQ selected a significant SCM at the Gasco site in March 2008. NW Natural completed a series of field efforts designed to support the detailed design of this SCM, a vertical barrier wall/groundwater extraction well system. NW Natural proposed a revised SCM in their 11/09 Interim Design Report, and DEQ and NW Natural are currently in formal dispute resolution over the next steps in source control and the upland RI/FS. We expect the dispute to be resolved in fall 2010…., 2) EOSM has further characterized the nature and extent of riverbank contamination, produced initial designs, and has been in negotiation with the Corps and natural resource trustees for the construction of riverbank treatment SCM at their facility. Construction of that river bank SCM is expected to begin in 2011 or 2012…., 3) late-2009 construction of an end-of-pipe stormwater filtration, storage and reuse at the Schnitzer Steel site. Schnitzer Steel is currently expanding the area of their facility that drains into the stormwater re-use/treatment system…, 4) DEQ recently selected a vertical barrier wall/groundwater extraction wells system as a groundwater/NAPL SCM for the Arkema site. The SCM is currently in final design and construction is scheduled to begin in 2011. DEQ also recently selected a stormwater SCM for the Arkema site. The stormwater SCM is currently in design and construction is expected to begin in 2011.

**Goal 3**- SCMs constructed and effectively operating at all High Priority sites by 1/1/12.

**Goal 3 Status as of 9/10**

-5 of 16 sites have effective groundwater SCMs operating. These 5 sites include: 1) Exxon/Mobil, 2) Gunderson, 3) Willbridge, 4) Arco/BP, and 5) Siltronic.

**Goals and Status for Medium and Low Priority Sites**

**Goal 4**- SCE completed at all Medium and Low Priority sites by 1/1/11

**Goal 4 Status as of 9/10**

-Two of the 24 Medium Priority sites currently have completed SCEs…, 10 of the 24 sites have interim source control measures in-place…, and 7 of the 24 sites are on schedule to be completed in 2010. Two of the 23 Low Priority sites currently have

completed SCEs..., 13 of the 23 have interim source control measures in-place..., and 7 of the 23 sites are on schedule to be completed in 2010.

**Goals and Status for Priority "To Be Determined (TBD)" Sites**

**Goal 5**- Completed prioritization at all TBD sites by 1/1/10.

**Goal 5 Status as of 9/10**

-2 of the 3 sites are EPA-lead sites (Vanwaters-&-Rogers & US Moorings).
-Koppers is the one last TBD site.

## 6.0 Issues Encountered in Source Control Work

This section summarizes issues affecting DEQ's completion of source control work. This section also presents the steps DEQ is taking to resolve the issues and complete source control work.

Issue 1: Moving projects through the source control process

Certain DEQ Portland Harbor cleanup projects are not proceeding through the source control process at an acceptable pace. There continues to be a number of reasons for the lack of adequate progress at these sites, including: complexity of the site, limited DEQ staff resources, uncertainty regarding liability/responsibility for the needed environmental work, reluctance of the responsible party to move forward, and economic strains on many of the responsible parties. Source control activities at these sites need to be accelerated in order to identify, evaluate and control upland contaminant sources before the Portland Harbor ROD. Moving High Priority sites forward has been an ongoing issue for DEQ. We are focusing our attention on these sites and working with the upland responsible parties to move these projects forward. Two of these sites include:

- **Burgard Industrial Park**
  Problem: At one time, Schnitzer Investment Corporation (SIC) owned the roughly 200-acre Burgard Industrial Park (BIP) that partially surrounds the International Terminals Slip at RM 4. A number of tenants leased properties in BIP. Over the past several years, SIC sold much of the BIP, including approximately 81 acres to Schnitzer Steel in May 2005. Schnitzer Steel operates their scrap metal recycling yard and marine terminal on property sold in 2005. DEQ now understands SIC currently owns approximately 21.5 acres of the BIP. SIC entered into a DEQ Voluntary Agreement in 2000 to perform a remedial investigation and source control measures for BIP. Since signing the agreement, DEQ and SIC have focused on the Schnitzer Steel portion of the BIP area. DEQ recently requested SIC conduct SCE in BIP outside the Schnitzer Steel site. SIC initially declined our request stating that since SIC didn't have access rights to the property they sold, and SIC would not be able to perform SCE for the portions which have been sold.
  Path to resolving and Progress Made since the December 2009 Milestone Report: SIC has now agreed in concept to conduct stormwater source control evaluations at BIP, and DEQ and SIC are negotiating a scope of work and implementation schedule for that work. However, that scope of work and implementation schedule has not been finalized.
- **GS Roofing**
  Problem: The DEQ project manger overseeing work at GS Roofing left DEQ in 2007, and the vacant position was not filled in a timely manner due to agency budget constraints. This,

and continuing staff-resource challenges has affected the progress of source control work at the site.

Path to Resolving: DEQ made GS Roofing site a priority for staffing and accelerated source control work. GS Roofing conducted independent investigations of the facility. The next step in the project is for DEQ to review this information and provide direction regarding what additional work is required and a schedule for this work. DEQ assigned a new project team to the GS Roofing project in early 2009.

Progress made since December 2009 Milestone Report: GS Roofing completed a stormwater system characterization effort and implemented several BMPs in response to the findings. The stormwater SCE report is expected to be completed in early 2011. The responsible party is developing a scope of work for the remaining elements of a comprehensive SCE.

Issue 2: Completing source control at the Gasco site

NW Natural's Gasco site (which includes NW Natural's manufactured gas plant contamination on the adjoining Siltronic property) is a High Priority site for upland source control. The distribution and magnitude of upland contamination at the Gasco site is extensive and very significant. Based on an October 2007 Focused Feasibility Study, DEQ selected a SCM combination consisting of a vertical barrier wall and groundwater pump-and-treat system in the Gasco former tar pond area and pump-and-treat elsewhere along the shoreline. NW Natural recently completed a number of studies to support the design of this SCM. Based on their studies, NW Natural recommended a revised SCM in summer 2009 for the former tar pond area consisting of only the pump-and-treat component. DEQ has a number of concerns with NW Natural's recommended SCM..., particularly that it will exacerbate exiting conditions by potentially mobilizing manufactured gas plant waste (dense non-aqueous phase liquid) without capturing it. In June 2010, DEQ directed NW Natural to move forward with source control of dissolved phase contamination along approximately 1,300 feet of shoreline and defer source control in the former tar pond area to the upland feasibility study so that source control could be considered comprehensively. DEQ and NW Natural are currently in formal dispute resolution over source control in the former tar pond area. We expect to resolve the dispute in fall 2010.

Issue 3: Completing source control at the Arkema site

As stated in Section 5, Arkema is working on three separate upland source control efforts at their site. 1st, Arkema submitted an FFS for groundwater/NAPL in summer 2008. DEQ selected a slurry wall/groundwater extraction system as the SCM in 2009, and the SCM is in design. We anticipate SCM construction to begin in summer 2011. 2nd, Arkema submitted a stormwater FFS in summer 2008, DEQ selected a stormwater SCM earlier this year and Arkema entered a DEQ Water Quality Mutual Agreement and Order in July 2010 to design, construct and monitor a new stormwater system. The stormwater SCM will consist of berming the perimeter of the site to prevent off-site overland flow, temporarily capping higher-level contaminated soil, decommissioning the existing collection and conveyance system including 3 of the 4 existing outfalls, installing a new collection/conveyance system which will route stormwater to a detention pond to reduce the suspended load, and discharging stormwater from the pond through a filter system to the river. Stormwater SCM construction is expected to begin in 2011 and conclude by the end of 2011. 3rd, Arkema evaluated their riverbank and the threat that portion of the site poses to the river. Riverbank source control is anticipated to be incorporated into the

EPA-lead in-water Early Action at Arkema. Arkema will evaluate riverbank SCM options in 2010-11.

Issue 4: DEQ staff resource limitations
Limited staff resources continue to affect DEQ's ability to conduct and complete source control work in Portland Harbor. Current and projected future state budget estimates continue to challenge DEQ. Over the last several years DEQ hired four new project managers and a GIS Coordinator to work on Portland Harbor projects and other projects. DEQ continually looks at staff work load and develops priorities to address the most important work. DEQ will continue Portland Harbor source control efforts focusing on the most significant and potentially significant upland sources.

Issue 5: Stormwater evaluation and control
Stormwater pathway evaluations are a relatively new and evolving effort for DEQ's Cleanup Program. In January 2009, DEQ issued its *Guidance for Evaluating the Stormwater Pathway at Upland Sites*. The guidance is currently being updated and this version will be available in October 2010 on DEQ's Portland Harbor website at:
http://www.deq.state.or.us/lq/cu/stmwtrguidance.htm

The updates to the guidance are intended to accomplish two objectives:

1. Make minor revisions to the text to clarify decision-making criteria.
2. Add a tool for evaluating stormwater data. This tool is described below.

Using the sizeable stormwater dataset generated by Portland Harbor investigations, DEQ developed a tool to assist with data interpretation. The tool can be used to help distinguish "typical" concentrations of contaminants in industrial stormwater from "elevated" concentrations that may indicate an uncontrolled source of contamination at a site. This distinction is important because it helps to determine the type of response warranted at the site. In general, stormwater discharges related to "normal' industrial operations are managed with stormwater Best Management Practices (BMPs) and, where appropriate, are regulated under Water Quality permits. If an uncontrolled contaminant source is suspected, it may be appropriate to invoke Cleanup Program regulations to conduct additional investigation and source control measures.

## 7.0 Summary

DEQ is making significant progress in controlling sources of contamination to the lower Willamette River in Portland Harbor, and is coordinating resources of its Cleanup, Hazardous and Solid Waste, Water Quality and Spills Programs to achieve upland source control objectives by the expected time of the Portland Harbor Record of Decision or shortly after. To date, DEQ has identified 90 upland sites that may be potential sources of contaminants in Portland Harbor, and most of these sites have been prioritized for additional investigation or source control. Additionally, DEQ evaluated a number of sites in our site discovery process throughout the Portland Harbor project and concluded these sites do not threaten the river.

As of September 2010, the DEQ categorized 90 sites (see Table 1) into the following source control categories:

**High Priority Sites**-11
**Preliminary High Priority Sites**- 5
**Medium Priority Sites**- 24
**Low Priority Sites**- 23
**Priority To Be Determined Sites**- 3
**Sites with Source Control Decisions**- 24

DEQ will submit a Milestone Report to EPA twice a year, with the next Milestone Report scheduled for March 2011, and update Table 1 and Table 2 with the current status of source control work at all upland sites. For more information about the Milestone Report or DEQ's source control work generally, please contact Jim Anderson, DEQ Portland Harbor Project Manager, at (503) 229-6825, or anderson.jim@deq.state.or.us.

## 8.0 Obtaining Additional Information on Upland Source Control Work

For more information on DEQ's source control work at any of the sites listed in Table 1, see DEQ's Portland Harbor web page (http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/index.htm) and click on "Upland Sites map" in the right hand corner. This link provides a map showing all Portland Harbor upland sites and summary reports of the status of source control work. Just open the map and click on the site you are interested in to connect to DEQ's Environmental Cleanup Site Information (ESCI) database, which houses current information on work at each site.

Alternatively, contact the DEQ project manager (PM) that is leading work on the site you are interested in. Contact information for each DEQ PM is listed on the last page of this report.

For more information on the status work on the Portland Harbor Superfund Site, see EPA's Portland Harbor web page (http://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor).

## 9.0 Information about Table 1: Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

The purpose of Table 1, entitled Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor, is to track and share information on the status of DEQ's efforts to evaluate and control sources of pollution to the Willamette River in Portland Harbor. The table provides information on each upland site that DEQ is working on in the Harbor, including the status of evaluations to determine whether source control is needed, the progress of source control measures, and the status of source control decisions and EPA review. Below is some helpful information for interpreting the table, including definitions for key terms and acronyms.

### Site Information and Project Status

The first columns of Table 1 provide basic background information on each site, including:

- the name of the site,

- the site's reference number for DEQ's Environmental Cleanup Site Information (ESCI) database,
- the location of the site (river mile and address),
- the DEQ project manager that is leading source control work,
- the type of agreement DEQ is using to direct cleanup activities at the site (i.e., Intergovernmental Agreement, Portland Harbor Agreement, Unilateral Order, etc.), and
- the status of work occurring at the site (i.e., Preliminary Assessment, Remedial Investigation, completed Source Control Decision, Remedial Design/Remedial Action, etc.).

Sites are listed in Table 1 based on their position alongside the Willamette River, or the "River Mile" associated with their location. The River Mile indicates distance of the site from the Willamette River's confluence with the Columbia River. Sites associated with a lower river mile occur downstream of sites with a higher river mile.

Sites listed in Table 1 are those in Portland Harbor at which DEQ is actively overseeing upland investigation or source control actions, or for which source control decisions have been made. DEQ updates the site information in ECSI when a Strategy Recommendation is made, but a site is not added to Table 1 until active oversight of the project is provided by DEQ.

**Source Control Evaluation**

The Source Control Evaluation (SCE) columns in Table 1 provide information on the status of DEQ's work to evaluate the need for source control measures, including the status of SCE for each potential pathway, the schedule for completing SCE, the basis for determining whether source control measures are needed, and the status of EPA review.

Potential pathways

Six standard pathways represent the major potential pathways that contaminants could follow to reach the river from an upland site. These pathways include:

- overland transport/sheet flow – the uncontrolled flow of water and other material to the river from a site
- bank erosion – erosion of material within the sloping bank areas of the site to the river
- groundwater – groundwater plumes or discharges to the river via seeps or through preferential pathways
- stormwater – stormwater discharges to the river that originate from a pipe or stormwater system, including unpermitted stormwater discharges and discharges under a DEQ general stormwater permit
- overwater activities – the storage or use of hazardous substances over the water (i.e., storage tanks on docks, permanent work activities conducted over water), that if released would be a potential current or future source of contamination to the river; pipelines and other conveyance systems are not considered in this category, releases from these types of systems are reported to the Oregon Emergency Response System (OERS) system for clean up
- other – may include permitted wastewater discharges, individually permitted stormwater discharges, air deposition or other pathways

Each of these standard pathways appears for each site in Table 1 to track SCE work on a pathway-specific basis.

Basis for determining the need for source control

DEQ evaluates each of the pathways listed above to determine the need for source control measures. DEQ makes this determination based on: (1) whether contaminants are present and whether the pathway is capable of carrying them to the river (if it is, the pathway is called "complete"); and if a complete pathway exists, (2) whether it is carrying contaminants to the river at concentrations that exceed the Screening Level Values (SLVs) provided in the Joint Source Control Strategy (JSCS)[5].

Three general examples are provided below.

- Example 1: Initial investigations of a site that is adjacent to the river indicate that bank soils have the potential to erode and carrying contaminants into the river. DEQ oversees a SCE to determine whether contaminants are in fact present in the bank soils and whether the eroded bank soils are carrying or could carry those contaminants into the river. The SCE concludes that contaminants are present in the bank soils and the soils are carrying contaminants into the river; the pathway is deemed "complete." The SCE then determines whether the bank soils are carrying or could carry contaminants to the river at concentrations that exceed the SLVs in the JSCS. If they are or could carry contaminants to the river at concentrations exceeding SLVs, DEQ determines that source control measures may be needed and assigns a priority of high or medium to the pathway based on the degree of SLV exceedance (see "Priority levels for each pathway and site" below for more information on the priority levels). If it is a high priority, then the RP should move forward aggressively evaluating, designing, and implementing SCMs. If it is medium priority, then the RP should use the weight-of-evidence approach to determine if further SCE is needed or if SCMs are needed.
- Example 2: Initial investigations of a site adjacent to the river indicate that groundwater has the potential to migrate toward the river and carry contaminants. DEQ oversees a SCE to determine whether contaminants are present in the groundwater and whether the groundwater is carrying or could carry those contaminants into the river. The SCE concludes that groundwater is or could carry contaminants into the river, but only at concentrations significantly below the SLVs listed in the JSCS. DEQ determines that the pathway is "complete," but no source control actions are needed because SLVs are not exceeded.
- Example 3: Initial investigations of a site near (but not adjacent to) the river indicate that stormwater has the potential to migrate toward the river and carry contaminants. DEQ oversees a SCE to determine whether stormwater is in fact migrating to the river and whether it is or could carry contaminants to the river. The SCE concludes that stormwater is actually not reaching the river and could not reach the river because it is diverted to a stormwater treatment system. DEQ determines that the pathway is "not complete" and no source control actions are needed.

Definition of "Insignificant pathway; no actions recommended"

[5] See p. 3-1 through 3-6 of the JSCS for more information about SLVs.

The term "insignificant pathway; no actions recommended," is used in Table 1 when (1) the pathway is complete, and (2) contaminant concentrations are near or below SLVs at a point of compliance (e.g., river bank monitoring wells) and are not anticipated to increase.

Use of "N/A" for the pathways

"N/A" is used in Table 1 to indicate that the particular pathway does not exist at the site. For example, for an upland site that is set back from the river (i.e., not adjacent to the river's edge) N/A would indicate that the overland transport/sheet flow, overwater activities, and bank erosion pathways do not exist at the site. For a site that is adjacent to the river, but where a concrete seawall lines the river bank, N/A would indicate that the pathway bank erosion does not exist at the site.

Priority levels for each pathway and site

Each pathway evaluated at each site is given a priority level for source control upon completion of the SCE, or when adequate information exists to determine the pathway's priority. Pathways are prioritized based on their ability to carry contaminants from upland areas to the river at concentrations that exceed SLVs. Each site is then given a priority level based on the highest priority of the pathways. For example, if a site has two low priority pathways and one high priority pathway, the site is determined to be a high priority for source control. Definitions for high, medium and low priority determinations follow.

- High – High priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is significantly impacting the river or poses a significant and imminent threat to the river based on initial evaluation of key source control prioritization factors (listed on p. 4-3 of the JSCS). A primary consideration is that one or more media (soil, groundwater or stormwater) significantly exceed applicable SLVs at the point of discharge to the river (e.g., water at the end of a discharge pipe or soil or material at the riverbank) or the most reliable and cost-effective data point (e.g., groundwater measured at the shoreline), or where a bioaccumulative chemical is detected at concentrations significantly above the SLV. In addition, if an upland source is violating DEQ narrative water quality criteria for the Willamette River, the site may be considered a high priority. High priority sites are expected to move forward with aggressive source control measures without delay or be subject to enforcement action.
- Medium – Medium priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is impacting the river or poses a significant and/or imminent threat to the river based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 of the JSCS). A primary consideration is that one or more media exceed applicable SLVs, but not significantly, at the point of discharge to the river, or where a bioaccumulative chemical is detected at concentrations above the SLV. Although exceedance of SLVs does not necessarily indicate that a site poses a significant and/or imminent threat or needs to immediately implement source control measures, it does indicate that the site may pose a threat to human health or the environment and that additional evaluation may be needed to determine if source control measures are required to prevent, minimize or mitigate the migration of hazardous substances to the river. If the site exceeds one or more SLVs, the need for further characterization or for implementation of source control measures will be based on a site-specific weight-of-evidence determination.

Medium priority sites are expected to perform a weight-of-evidence evaluation to determine if source control measures are required (see p. 4-5 of the JSCS for more information on the weight-of-evidence evaluation).

- Low – Low priority pathways and sites are those where upland data indicate, based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS), that the site likely poses a low threat to the river (e.g., concentrations are near or below SLVs) or where DEQ, in consultation with EPA, may issue an upland "No Further Action" (NFA) determination or lower the State's priority of the site for further upland investigation or remedial action under DEQ's cleanup authority. Source control measures will not be required at low priority sites unless determined necessary by the results of the Portland Harbor RIFS or ROD.
- p High – DEQ's preliminary determination is that this is likely a high priority pathway or site based on available information. A final determination of pathway or site priority will be made upon completion of the SCE.
- p Med – DEQ's preliminary determination is that this is likely a medium priority pathway or site based on available information. A final determination of pathway or site priority will be made upon completion of the SCE.
- p Low – DEQ's preliminary determination is that this is likely a low priority pathway or site based on available information. A final determination of pathway or site priority will be made upon completion of the SCE.

**Source Control Decisions and Status of Source Control Measures**

The Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) columns in Table 1 provide information on actions taken or needed to control sources of contamination to the river, including the selected SCMs for each pathway, status of SCM implementation, status of EPA review, and ongoing operation and maintenance requirements.

For many sites listed in Table 1, boxes for information on SCDs and SCMs will be blank because source control work at those sites is still in the evaluation (SCE) phase. Other sites may be in the process of implementing SCMs, and still others may have completed all source control work. For those sites that have completed upland source control and SCMs have been determined to be effective, shading indicates that work is finished at this point in time. Upon completion of the Portland Harbor in-water RIFS, however, DEQ will reevaluate all source control work to ensure that it adequate controlled contaminants to the final cleanup levels developed for the Harbor.

## 9.1 Acronyms and abbreviations

| | |
|---|---|
| Agr | Agreement |
| AOC | Administrative Order on Consent |
| AS/SVE | Air sparge/soil vapor extraction – a Source Control Measure used to remove volatile contaminants from groundwater; often combined with treatment measures |
| AST | Above ground Storage Tank |

| | |
|---|---|
| AWQC | Ambient Water Quality Criteria |
| BES | Bureau of Environmental Services |
| BIP | Burgard Industrial Park |
| BMPs | Best Management Practices |
| BRA | Baseline Risk Assessment |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| COI | Contaminant of Interest – chemicals present in Portland Harbor at levels that could threaten human health and the environment |
| CSOs | Combined-Sewer Overflows |
| cy | Cubic Yard |
| DEQ | Oregon Department of Environmental Quality |
| ECSI | DEQ's Environmental Cleanup Site Information database |
| EIB | Enhanced In-situ Bioremediation |
| EPA | Environmental Protection Agency |
| FS | Feasibility Study – a phase of the cleanup process; evaluating cleanup alternatives after the Remedial Investigation has been completed |
| FFS | Focused Feasibility Study |
| GW or gw | Groundwater |
| ICP | Independent Cleanup Pathway |
| IGA | Inter-Governmental Agreement |
| IRAM | Interim Remedial Action Measure |
| HVOCs | Halogenated Volatile Organic Compounds |
| IRAM | Interim Remedial Action Measure |
| JSCS | Joint Source Control Strategy – issued by DEQ and EPA in December 2005[6] |
| LNAPL | Low density Non-Aqueous Phase Liquid |
| LWG | Lower Willamette Group |
| MOA | Memorandum of Agreement |
| MOU | Memorandum of Understanding |
| MS4 | Municipal Separate Storm Sewer System |
| N/A | Not Applicable – used in Table 1 to indicate that the particular pathway does not exist at the site |
| NAPL | Non-Aqueous Phase Liquid |
| N&E | Nature and extent of the contamination at the site |
| NFA | No Further Action – a DEQ notice to a Responsible Party declaring that no further cleanup action is needed at the site |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priority List |
| OF | Outfall |
| p&t | Pump & Treat system – a Source Control Measure used to remove or contain and treat contaminated groundwater |
| PA | Preliminary Assessment – an early assessment stage of the cleanup process |
| PCB | Polychlorinated Biphenyls |
| PH | Portland Harbor |

[6] The JSCS is available on DEQ's web site at (http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/index.htm); click "Joint Source Control Strategy" on the left side bar.

| | |
|---|---|
| PH Agr | Portland Harbor Agreement – a formal agreement to conduct the remedial investigation and source control work |
| PH Ltr Agr | Portland Harbor Letter Agreement – an initial agreement to conduct limited investigation and cleanup activities and cover DEQ's oversight costs |
| PM | DEQ Project Manager leading cleanup work at the site |
| PPA | Prospective Purchaser Agreement – a tool for negotiating and agreeing upon potential liability for prospective purchasers of sites |
| PRP | Potentially Responsible Party |
| ROD | Record of Decision |
| RD/RA | Remedial Design/Remedial Action – a phase of the cleanup process that occurs after the Record of Decision; designing and implementing the cleanup action |
| RI | Remedial Investigation – a phase of the cleanup process; investigating the nature and extent of contamination and understanding the potential risks posed by the contaminants to human health and the environment |
| RI/FS | Remedial Investigation/Feasibility Study |
| RM | River Mile |
| RP | Responsible Party |
| SC | Source Control |
| SCD | Source Control Decision |
| SCE | Source Control Evaluation |
| SCM | Source Control Measure |
| SIC | Schnitzer Investment Corp |
| SLV | Screening Level Value – a contaminant-specific level established in the JSCS (see JSCS Table 3.1) that is used to screen upland pathways and sites to identify potential threats to human health and the environment. |
| SOW | Scope of Work |
| SVE | Soil Vapor Extraction – a Source Control Measure used to remove volatile contaminants from subsurface soils; often combined with soil vapor treatment |
| TBD | To Be Determined |
| TCA | Trichloroethane |
| UIC | Underground Injection Control system |
| UST | Underground Storage Tank |
| VCP | Voluntary Cleanup Program |
| VOCs | Volatile Organic Compounds |
| WO | Waiting on |
| XPA | Expanded Preliminary Assessment – an early assessment stage of the cleanup process |

## 9.2 Contact information for DEQ Project Managers

| | | |
|---|---|---|
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# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor



Note: Sites in this table are listed in order of their position alongside the Willamette River, or the "River Mile" associated with their location; the River Mile indicates distance from the Willamette River's confluence with the Columbia River.

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Overland Transport/Sheet Flow | N/A | NA | N/A | N/A | none | Low | N/A | N/A | NA | NA | NA | NA | NA | NA | NA | NA |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Bank Erosion | N/A | NA | N/A | N/A | none | | N/A | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Groundwater | Completed | NA | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 6/07 - EPA comments received 6/07 | | | | | | | | | |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Stormwater | Completed | NA | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 6/07 - EPA comments received 6/07 | | | | | | | | | |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | no pathway, berm prevents overland transport/sheet flow | None | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Bank Erosion | Completed | | SCE is part of June 06 Alternatives Evaluation | Pathway is complete | High | | Deferred to Alternatives Evaluation | Original permit for shoreline action withdrawn based on Agency input. New permit with modified design to be submitted once additional shoreline sampling results evaluated. | | Evaluating path forward considering EPA/Natural Resource Trustee comments | | | | | | |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Groundwater (UST & AST AOCs) | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 10/2004; no comments received | | Soil removal completed at time of spill, prior to SCE | | | | | | SCE submitted to EPA 10/2004; no comments received | Operation and Maintenance requirements |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Groundwater (other AOCs) | Ongoing | DEQ SCE memo for EPA in preperation | 1st qtr 2011 | Pathway is complete | Medium | High | Pending completion of SCE | | | | | | | | | |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Stormwater | Completed | | | Pathway is complete | High | | SCE is part of Alternatives Evaluation | alternative evaluation completed 2006 | End of pipe treatment | EPA agreed with proposed approach 9/14/06 | Full-scale pilot operating 10/07; end of pipe treatment expanded to central outfall Fall 2008; loading evaluation approved 2010 however, evaluating appropriate treatment chemical | | pilot testing completed, loading evaluation approved 2010, evaluating treatment chemical | | | |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Other - current NPDES permitted discharge | Completed | N/A | Addressed under NPDES permit | Pathway addressed via NPDES permit | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Sauvie Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Sauvie Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Bank Erosion | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Sauvie Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Groundwater | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Sauvie Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Stormwater | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Sauvie Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Overwater Activities | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Sauvie Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Other | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 05/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 05/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Groundwater | Completed | None | N/A | Incomplete pathway | none | Medium | Anticipate providing SCE to EPA 2nd Qtr 2011 | | | | | | | | | |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Stormwater | Completed | | | Complete | Medium | | Anticipate providing SCE to EPA 2nd Qtr 2011 | | Cleaned stormsewer lines, proposed line repair options and post SCM monitoring plan. | | Stormwater system repair completed 2nd quarter 2010 | | Performance monitoring ongoing - anticipate providing EPA summary of remedy effectiveness 2nd Qtr 2011 | | | |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | | |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | | |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | | |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Overland Transport/Sheet Flow | Completed | None | First Quarter 2011 | Incomplete pathway | none | Medium | SCE will be submitted to EPA when stormwater assessment is complete | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Bank Erosion | Completed | None | First Quarter 2011 | Insignificant pathway; no actions recommended | p Low | | SCE will be submitted to EPA when stormwater assessment is complete | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Groundwater (Main Tank Farm Petroleum Plume) | Completed | None | First Quarter 2011 | Pathway is complete. GW Monitoring ongoing | Medium | | SCE will be submitted to EPA when stormwater assessment is complete | Work plan for soil removal in tank farm area in review | Impacted source area soil to be removed | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Groundwater (Bell Terminal Petroleum Plume) | Completed | None | First Quarter 2011 | Pathway is incomplete. GW Monitoring ongoing | p Low | | SCE will be submitted to EPA when stormwater assessment is complete | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Groundwater (Penta Plume) | Completed | | | SCMs retard penta migration and prevent penta discharge to private stormwater outfall | Medium | | SCE submitted to EPA. | alternatives evaluation completed 2004 | Source area pump & treat; insitu chemical oxidation (ISCO); gw to sw intercept pump & treat; plans for additional source area soil removal in development | SCD for SCM selection submitted to EPA May 2004; partners responded with questions | Ongoing pump & treat provides containment; 4 rounds of ISCO conducted through Spring '07 | Over 45 million gallons of groundwater pumped and treated, ISCO has treated groundwater insitu (no estimate of volume) | Ongoing groundwater pump & treat; evaluation of ISCO effectiveness TBD - bioremediation methods being tested | | | Ongoing maintenance and monitoring of pump & treat system |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Stormwater | Ongoing | Complete stormwater characterization | 4th Quarter 2010 | Pathway is complete | p Low | | Waiting on SCE phase to be completed | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (no spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Groundwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| City of Portland Outfalls | various | 3.5 to 0.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Stormwater | Ongoing | Complete outfall basin characterizations, site-specific investigations and source control. | Ongoing (corresponding to Portland Harbor ROD) | Pathway is complete; priority varies from basin to basin | to be determined | to be determined | Waiting on SCE to be completed. | | Final SCM TBD. Ongoing SW inspections, investigations of illicit discharges, identification of potential contributors to City system. Site-specific catch basin cleanouts, line cleaning, and implementation of BMPs | | | | | | | |
| City of Portland Outfalls | various | 3.5 to 0.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 0.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed in 2000 and did not provide comments | | No SCM needed | | | | | | | |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Groundwater | Completed | 10/2001 DEQ concluded not a current source. 5/2002 DEQ requesteded aditional groundwater work based on new PH strategies. 8/2002 GP declined. DEQ considers groundwater pathway not fully characterized, but not a high priority. | | | Low | Low | EPA reviewed in 2000 and did not provide comments | NA | No SCM needed | NA | NA | NA | NA | NA | NA | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Stormwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA (10/04); no comments | | No SCM needed | | | | | | SCM submitted to EPA ( 10/04). No comments. | |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Stormwater | Completed | | | Currently insignificant pathway; stormwater pipe suspected past migration pathway | Low | Low | SCE submitted to EPA (10/04); no comments | | Completed FS proposes removal of contaminated off-site soil potentially available for transport to river. | SCM submitted to EPA (10/04). No comments | 6,400 tons of contaminated soil removed in 2006 and site capped with 1.5 feet of clean fill in 2007 | | | | SCM submitted to EPA (10/04). No comments. | |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | Complete | | | | | | | | | |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | Complete | | | | | | | | | |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Groundwater | Completed | | | Currently no complete pathway; groundwater monitoring to confirm plume stability | Low | Low | Complete | | | | | | | | | Annual groundwater monitoring (conditional NFA) |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | Complete | | | | | | | | | |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | N/A | 03/02/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | N/A | 03/02/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI | 07/06/10 | Overland Transport/Sheet Flow | Ongoing | To be evaluated as part of stormwater evaluation | Estimated Fourth Quarter 2011 | Pending | p Low | High | | | | | | | | | | |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI | 07/06/10 | Bank Erosion | Ongoing | Additional sampling needed | Estimated Fourth Quarter 2011 | Pending | p Low | | | | | | | | | | | |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI/SCE | 07/06/10 | Stormwater | Ongoing | Complete stormwater system characterization | Estimated Fourth Quarter 2011 | Pending | p Low | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI/SCE | 07/06/10 | Overwater Activities | Ongoing | N/A | N/A | NA | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI/SCE | 07/06/10 | Groundwater and LNAPL to surface water at site shoreline | Completed | None | N/A adequate documentation exists | Complete | High | | | SCM Evaluation (FFS) in preparation | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA (3/06); DEQ responds 4/06 | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | N/A | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | SCE submitted to EPA (3/06); DEQ responds 4/06 | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA (3/06); DEQ responds 4/06 | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA Reviewed and commented 10/20/02 | | No SCM needed | | | | | | | |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA Reviewed and commented 10/20/02 | | No SCM needed | | | | | | | |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | Review draft SCE | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Bank Erosion | Ongoing | Review draft SCE | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Groundwater | Ongoing | Review draft SCE | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Stormwater | Ongoing | Review draft SCE | 4th Qtr 2010 | Waiting on SCE to be completed | p Low | P Low | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overland Transport/Sheet Flow | Ongoing | Investigation scope of work under review | TBD | Waiting on SCE to be completed | p High | pHigh | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Bank Erosion | Ongoing | Additional sampling needed | TBD | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Groundwater | Ongoing | Additional groundwater characterization | TBD | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Stormwater | Ongoing | Additional stormwater characterization | TBD | Waiting on SCE to be completed | p High | | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Other | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Groundwater | Ongoing | SCE report in revision | 4th Quarter 2011 | Not believed to be a complete pathway | none | | Waiting on SCE to be completed | | | | | | | | | |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Stormwater | Ongoing | SCE report in revision | 4th Quarter 2011 | SW suspected migration pathway | p Med | p Med | Waiting on SCE to be completed | | | | | | | | | |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overland Transport/Sheet Flow | Ongoing | Additional sampling needed | 4th Quarter 2011 | Waiting on SCE to be completed | p High | p High | Waiting on SCE to be completed | | | | Asphalt berm constructed in summer 2009 along 925 feet of landward edge of Schnitzer dock to help prevent overland runoff to slip | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Bank Erosion | Ongoing | Additional sampling needed | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Groundwater | Ongoing | ongoing monitoring | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Stormwater | Ongoing | Ongoing monitoring - and engineering improvements including stormwater filtration and storage | 4th Quarter 2011 | Complete | p High | | Waiting on SCE to be completed | | Signicant stormwater system upigrades in progress | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overwater Activities | Not Started | To be determined | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Air Deposition | Not Started | To be determined | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/CSM (3/00) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Bank Erosion | Ongoing | To be determined | 1st qtr 2011 | Physical evalution of bank, sampling if possible 4th quarter 2010 | to be determined | | Waiting on SCE to be complete | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Groundwater | Ongoing | RP will conduct IRAM effectiveness evaluation and FFS for barrier wall installation | 1st qtr 2011 | LNAPL seeps on shoreline and dissolved petroleum likely discharging to river | p High | p High | Waiting on SCE to be complete | | Interim LNAPL removal and groundwater pump and treat system in operation, FFS for barrier wall is in development phase | | | | | | | |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Stormwater | Ongoing | Stormwater SCE received, DEQ review and approval need. | 3rd Qtr 2010 | to be determined | to be determined | | Waiting on SCE to be complete | | | | | | | | | |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | NPDES Permit for groundwater treatment discharge | Ongoing | GW treatment system & oil/water separator on NPDES - Evaluate existing data set | 3rd qtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be complete | | | | | | | | | |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Bank Erosion | Completed | SCM necessary; coordinate with T4 Early Action | Tied to T4 Early Action schedule | Pathway is complete | Low | | Tied to T4 Early Action schedule | Part of T-4 Early Action Process | Cap | Selected SCMs | Wheeler Bay SCMs 10-08 | Completion report submitted 9-09 | Wheeler Bay bank regraded and capped fall 2008 | 10-08 | EPA reviewed and commented. | periodic inspection and maintenance |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Groundwater | Completed | None | N/A | Preliminary determination that pathway is insignificant | p Low | | Waiting on results of stormwater remedy effectiveness monitoring | | | | | | | | | |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Stormwater | Completed | None | N/A | Complete | p Med | | Waiting on results of stormwater remedy effectiveness monitoring | | | | Stormwater BMPs and line cleanout implented - effectivness monitoring ongoing | | | | | |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Overland Transport/Sheet Flow | Completed | | | SCM addressed this potentially complete pathway | Low | Low | EPA reviewed and commented | | Independent removal of two small upland source areas and offsite disposal in 2002 | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | No SCM needed | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | No SCM needed | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | Ongoing Stormwater BMPs and monitoring | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Overwater Activities | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | No SCM needed | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | | N/A | | | | | | N/A | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A - see Bank Erosion and Stormwater pathways | N/A | N/A | none | Medium | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Bank Erosion | Completed | | | Pencil pitch observed and PAHs detected in river bank soils above PECs | Medium | | Spring 2009 | | Excavation and capping | Spring 2009 | | | Excavation and capping at 1 of 3 areas (fall 2009); remaining 2 areas to be implemented with Phase II Early Action | 1 of 3 areas completed 2009 | | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Groundwater | Completed | | | Complete pathway - remedy recommended and implemented | Medium | | EPA reviewed and commented, 2/2003 | | Bank excavation and backfill remedial action, NAPL recovery, monitoring | EPA reviewed and commented, 2/2003 | Bank excavation and backfill remedial action (BEBRA) 11/04 | 2,700 cubic yards of contaminated soil removed; 30.2 gallons NAPL recovered to date | NAPL recovery and monitoring ongoing | | | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Stormwater | Ongoing | Stormwater sampling ongoing | 4th Quarter 2011 | Complete pathway; BMPs in place | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Overwater Activities | N/A | N/A - Historic releases to be addressed by the in-water T4 Early Action | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA April 2004, no comments received | | No SCM needed | | | | | | | |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA April 2004, no comments received | | No SCM needed | | | | | | | |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Bank Erosion | N/A | No Bank -concrete sea wall | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Groundwater | Completed | | | Free product & dissolved phase potentially reaching river | High | | EPA reviewed and commented 2007 | alternatives evaluation completed 3/2007 for on site GW | New sheetpile barrier wall with hydraulic control and GW pump & treat system | EPA reviewed 3/2007 | Hydraulic Control system installed 1/2005, new sheetpile seawall 11/2007 | 700 linear feet of plume controlled at riverbank | | 11/08 | | Recontamination evaluation due 4th quarter 2010 |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Stormwater | Ongoing | Sampling stormwater system | 4th Quarter 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Near shore sediment | N/A | N/A | N/A | N/A | none | | N/A | alternatives evlauation for near-shore sediment completed 3/07 | Revetment and near-shore sediment removal and off-site disposal | EPA reviewed 3/07 | Sediment removal complete 11/08 | 16,300 CY sediment | Final grading and planting summer 2009 | 11/08 | TBD | Recontamination evaluation |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 6/04 | | No SCM needed | | | | | | | |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 6/04 | | No SCM needed | | | | | | | |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 6/04 | | No SCM needed | | | | | | | |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Groundwater | Completed | | | Groundwater is a complete pathway | High | | DEQ issued a ROD in 1997 requiring groundwater treatment | DEQ issued a ROD in 1997 requiring groundwater treatment | Operating air sparge & SVE system. Expansion of air sparge system (1/2005) - Additional GW hydraulic control planned for "hydraulic gap" area in 4th quarter 2010 | Possibility only if remedy is shown not to be protective and alternative remedial action is proposed | Operating air sparge & SVE system. Expansion of air sparge system (1/2005) | | Additional SCMs in hydraulic gap at downstream end of site planned for 4th quarter 2010 | | | Sytem inspection , opertion, and effectiveness monitoring oneing |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Stormwater | Pending EPA Review | Current facility owner NuStar will conduct SCE for bulk plant; ExxonMobil will conduct SCE at their Lube Plant | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Other | Not Started | N/A | N/A | N/A | to be determined | | | | | | | | | | | |
| Olympic Pipeline Portland Facility wthin ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 02/19/09 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Olympic Pipeline Portland Facility wthin ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Olympic Pipeline Portland Facility wthin ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE completion | | Conducted soil removal following petroleum spill in mid 1990s | | | | | | | |
| Olympic Pipeline Portland Facility wthin ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Stormwater | Ongoing | Dependent upon groundwater conditions | 4th Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | | | | | | | | |
| Olympic Pipeline Portland Facility wthin ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Olympic Pipeline Portland Facility wthin ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XFA | 08/02/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Overland Transport/Sheet Flow | Not Started | Source Control Evaluation Assessment SOW under review implimentation fall 2010 | 2nd Quarter 2011 | Pathway derermination | to be determined | p Med | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Bank Erosion | Not Started | Source Control Evaluation Assessment SOW under review | 2nd Quarter 2011 | Pathway is complete | p Med | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Groundwater | Not Started | Source Control Evaluation Assessment SOW under review | 2nd Quarter 2011 | Pathway is complete | p Med | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Stormwater | Not Started | Source Control Evaluation Assessment SOW under review implimentation fall 2010 | 2nd Quarter 2011 | to be determined | to be determined | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Overwater Activities | Not Started | Source Control Evaluation Assessment SOW under review | 2nd Quarter 2011 | to be determined | to be determined | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Loading Rack investigation | Ongoing | Characterization of releases from loading rack | to be determined | to be determined | to be determined | | Waiting on SCE completion | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Bank Erosion | Ongoing | Evaluated as part of SCE | 4th Quarter 2011 | Not believed to be a complete pathway | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Groundwater | Ongoing | SCE Report Under Development | 4th Quarter 2011 | Pathway is complete | pMed | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Stormwater | SCE Report is being Produced. All data collected | Catch basin sediment sampling/screening for site COI plus PCBs and phthalates, and follow-up storm water sampling per JSCS. | 4th Quarter 2011 | to be determined | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills will be reported to OERS) | none | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Overland Transport/Sheet Flow | Completed | | | overland soil transport suspected migration pathway | Low | p Med | EPA reviewed and commented 2004 | alternatives evaluation completed in 2004 | removal of 278 cubic yards of sandblast grit and soil; DEQ issues SCD in 4/2004 | EPA reviewed and approved 2004 | 2007 | 278 CY soil | Port of Portland condemned property. Port conducted soil removal as prescribed in ROD 5/07 | 5/07 | EPA commented 5/08 | None |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Bank Erosion | Not Started | | | Deferred investigation of beach to Mar Com South Parcel | p Med | | | | Deferred investigation of beach to Mar Com South Parcel | | | | | | | |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 2004 | | N/A | | | | | | | |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 2004 | | N/A | | | | | | | |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Other | N/A | | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Overland Transport/Sheet Flow | Completed | | | contaminated over screening criteria in soil potentially susceptible to runoff | Low | | SCE submitted to EPA 9/30/04. No comments received. | alternatives evaluation completed 2004 | Dig and haul soil contamination; capping with clean fill and/or building | SCM submitted to EPA 9/2004, no comments received | Soil removed 08/05; selected site areas capped with building and/or clean fill | 1,150 cubic yards of soil removed (estimated); report pending | | 11/05 | SCD submitted to EPA July 18, 2007. | Institutional control for cap and building will be required. |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 9/30/04. No comments received. | alternatives evaluation completed 2004 | No SCM needed | | | | | | SCD submitted to EPA July 18, 2007. | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | SCE submitted to EPA 9/30/04. No comments received. | alternatives evaluation completed 2004 | No SCM needed | | | | | | *SCD submitted to EPA July 18, 2007. | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Stormwater | completed | | | Insignificant pathway; no actions recommended | Low | | N/A | N/A | N/A | N/A | N/A | N/A | Storm drain system was installed in May 2006; 3 storm water sampling events complete. 1 more pending. | | *SCD submitted to EPA July 18, 2007. | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Overland Transport/Sheet Flow | Ongoing | Reviewing revised SCE | Pending review | Complete | p High | p High | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Bank Erosion | Ongoing | Reviewing revised SCE | Pending review | TBD | p Med | | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Burgard | Mike Romero | PH Agr | RI | 06/30/10 | Groundwater | Ongoing | Reviewing revised SCE | Pending review | TBD | p Med | | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Stormwater | Ongoing | Reviewing revised SCE | Pending review | TBD | to be determined | | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Overwater Activities | N/A | No current overwater activities, only historic | N/A | N/A | N/A | | N/A | | Floating dry dock sold in 2004, and removed from site | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Overland Transport/Sheet Flow | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | no alternatives evaluation needed | no alternatives evaluation needed | no alternatives evaluation needed | no alternatives evaluation needed |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Bank Erosion | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Groundwater | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | Low | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Stormwater | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Overwater Activities | Completed | N/A | N/A | No known current sources (spills will be reported to OERS) | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Other | Completed | N/A | N/A | No known current sources (spills will be reported to OERS) | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Overland Transport/Sheet Flow | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Bank Erosion | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Groundwater | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Stormwater | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Overwater Activities | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Other | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | See Stormwater Pathway | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | Work plan to sample erodible surface soils approved; results pending | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Bank Erosion | Ongoing | Bank characterization underway | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | p Low | Waiting on SCE completion | | RP removed black sand from beach and bank in 10/01. Residual contamination exists on beach, deferred to in-water RI. Bank was replaced with clean fill. | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Groundwater | Ongoing | None | 2nd Quarter 2011 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE completion | | | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Stormwater | Ongoing | Storm water sampling per JSCS | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | RP currently evaluating possible stormwater piping and seep sources | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 10/30/10 | Overland Transport/Sheet Flow | Completed | None | 4th Quarter 2010 | Pathway potentially complete | p Low | | N/A | Potential runoff in eastern corner of site will be controlled by future bank remedial work whch will be EPA lead. | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 07/30/10 | Bank Erosion | Completed | N/A, NW Natural moving forward with source control | N/A, NW Natural submitted SCM evaluation (FFS) | Pathway is complete | High | | N/A | SCM Evaluation (FFS) received 11/07, DEQ review complete (3/08) | Depending on location, riverbank SCMs to include bank regrading, repair, removal, and replacement combined with shallow groundwater controls. | EPA comments received 2/08 | | | NW Natural, EPA, and DEQ agreed riverbank remediation will take place concurrently with the construction phase of the NW Natural & Siltronic in-water sediment action, both to be overseen by EPA. AOC for in-water work finalized 9/09. | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| NW Natural "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/08 | RI | 07/30/10 | Groundwater | Completed | N/A, NW Natural submitted SCM Evaluation (FFS) | N/A, NW Natural submitted SCM Evaluation | Pathway is complete | High | High | N/A | SCM Evaluation (FFS) submitted 11/07, DEQ review complete 3/08 | Vertical barrier in most contaminated shoreline area (Segment 1), hydraulic containment along site shoreline (segments 1 and 2), and DNAPL removal beneath former effluent ponds. | EPA comments received 2/08 | Preliminary design received (6/08); DEQ review complete (8/08). Interim Design received (11/09); DEQ review complete (3/10). DEQ conditionally approved Segment 2 design. Due to DNAPL concerns and timing of implementation DEQ deferred source control along "Gasco" portion of Segment 1 to uplands FS. | | NW Natural formally disputing DEQ Segment 1 source control decision. | | | |
| NW Natural "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/08 | RI | 07/30/10 | Stormwater | Ongoing | Complete stormwater & catch basin sampling report for JSCS screening purposes. | 4th Quarter 2010 | Pathway is complete | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |
| NW Natural "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/08 | RI | 07/30/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/08 | RI | 07/30/10 | Other - Koppers NPDES Permit | Ongoing | Complete catch basin sediment sampling report for JSCS screening purposes. | 4th Quarter 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | Part of NW Natural "Gasco" Site; see ESCI #84 | | 07/30/10 | Overland Transport/Sheet Flow | | | | | | to be determined | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Bank Erosion | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Groundwater | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Stormwater | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Overwater Activities | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | Ongoing | 07/30/10 | Other - Koppers NPDES Permit | Ongoing | Complete catch basin sediment sampling report for JSCS screening purposes. | 4th Quarter 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendmeet #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Bank Erosion | Ongoing | Complete characterization of MGP waste/contamination along shoreline per NW Natural's "Siltronic MGP Site" RI work plan approved 10/07. | to be determined | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Groundwater | Siltronic portion of Segment 1 complete, Segment 3 ongoing | MGP waste and contamination being investigated along shoreline upstream of Segment 1 (i.e., Segment 3) per MGP RI work plan. Review draft pf Segment 3 SCE submitted 2/09. | 4th Quarter 2010 (Segment 3 projected) | Pathway is complete | High | | SCM Evaluation (FFS) received 11/07, including Siltronic portion of Segment 1; DEQ review complete (3/08) | Hydraulic containment of Siltronic portion of Segment 1 | EPA comments received 2/08 | Preliminary design received (6/08); DEQ review complete (8/08) Interim design received (11/09); DEQ review complete (3/10). DEQ conditionally approved NW Natural's interim design for two extraction wells along Siltronic portion of Segment 1. | | NW Natural formally disputing DEQ Segment 1 source control decision for "Gasco" site portion of Segment 1. | | | |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Stormwater | Ongoing | Evaluate MGP waste/contamination in shallow soils per MGP RI work plan and combine with Siltronics stormwater system data. | 4th Quarter 2010 | Pathway is complete | to be determined | | Waiting on SCE to be completed | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Other - Doane Creek | Ongoing | Investigate COI contributions to Doane Creek & City's OF-22C per Siltronic MGP Site RI work plan (Summer 2010) | TBD pending results of bank soil, stream sediment, and surface water sampling proposed in MGP RI | Pathway is complete | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A, subsurface releases from UST system | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Bank Erosion | N/A | N/A, subsurface releases from UST system | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Groundwater | Completed | N/A, Siltronic moving forward with source control, SCM Evaluation (FFS) submitted 10/07 | N/A, Siltronic submitted SCM Evaluation | Pathway is complete | N/A, Siltronic submitted SCM Evaluation | | | SCM Evaluation (FFS) complete (12/07), DEQ review complete (2/08) | Enhanced in-situ bioremediation (EIB) in source area of TCE release, hydraulic containment in coordination with NW Natural along shoreline | EPA comments communicated to Siltronic 5/08 | Final EIB work plan received (10/08), approved by DEQ (12/08); EIB performance monitoring well network established (2/09), EIB injections complete (7/09) | | Groundwater monitoring within and downgradient of source area (i.e., former UST system) to assess EIB performance and effectiveness is ongoing. | | | Contingency measures(hydraulic control/containment) may be implemented based on downgradient groundwater performance monitoring data and trends. |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Stormwater | Ongoing | Complete storm water and catch basin report per JSCS | 4th Quarter 2010 | Pathway is complete | to be determined | High | Waiting on SCE to be completed | | | | | | | | | |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Other - Sediment contamination (Area 2) offshore of northern facility outfall (Outfall 001) | N/A | N/A | N/A | N/A | | | N/A | | | | | | Area 2 sediment contamination will be included in NW Natural/Siltronic in-water sediment action overseen by EPA. AOC for in-water work finalized 9/09. | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Overland Transport/Sheet Flow | Completed | None | Waiting on completion of riverbank work | Waiting on SCE WP to be completed | p Low | p Low | Waiting on SCE to be completed | | | | Removal of contaminated soil completed June 2008 | 625 cubic yards | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Bank Erosion | Ongoing | Additional sampling planned Fourth quarter 2010 | TBD | TBD | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Groundwater | Ongoing | Additional sampling planned Fourth quarter 2010 | TBD | TBD | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Stormwater | N/A | No site-related stormwater outfalls | NA | Insignificant pathway; no actions recommended | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Overwater Activities | N/A | N/A | N/A | No current source; likely historic sources | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 08/21/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 08/21/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 08/21/10 | Groundwater (plume discharge to river) | Ongoing | SCE Report and Alternatives Analysis | SCE Report in revision - 9/2010 | Pathway is complete | p High | | Waiting on SCE to be completed | Interim measure pilot study ongoing; | | | | | | | | |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 08/21/10 | Groundwater (plume discharge to City Outfall 22B) | Ongoing | Phased dry weather flow investigation completed | Part of SCE 9/2010 | Pathway is complete | p High | p High | Waiting on SCE to be completed | Interim measures implemented | Interim SCMs to stormwater line to prevent gw infiltration, effectiveness monitoring ongoing | | Lining of entire 22B system in progress, early measures not effective, expected to be complete 3rd quarter 2010 | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Stormwater | Ongoing | Complete SCE write up | Part of SCE 9/2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Other - historical drainage ditch | Ongoing | Complete remedial investigation | Part of SCE 9/2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Other - current NPDES permitted discharge | Ongoing | Data collection for PH COI | Part of SCE 9/2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Overland Transport/Sheet Flow | Completed | | | Pathway is complete | High | | Complete | | contaminated soil removal, sheet-pile barrier wall, sediment cap, riparian soil cap, upland soil cap, creosote extraction | | all SCMs have been implemented | 8,200 gallons of creosote recovered from groundwater, 33,000 tons of contaminated soil and debris removed, 23 acres of contaminated sediment capped, 6 acres of contaminated bank soil capped, 35 acres of contaminated upland soil capped | | | EPA reviewed and commented. | periodic inspection and maintenance, effectiveness monitoring, site use restrictions |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Bank Erosion | Completed | | | Pathway is complete | High | | Complete | | | | | | | | EPA reviewed and commented. | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Groundwater | Completed | | | Pathway is complete | High | | Complete | | | | | | | | EPA reviewed and commented. | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Stormwater | Completed | | | Pathway is complete | High | | Complete | | | | | | | | EPA reviewed and commented. | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Overwater Activities | Completed | | | Pathway is complete | High | | Complete | | | | | | | | EPA reviewed and commented. | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Other | N/A | | | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater (Chlorobenzene/DDT Plume) | Completed | | Completed April 07 | Pathway is complete | High | | EPA May 07 Completed | Draft focused feasibility study (ffs) for proposed hydraulic containment wall/system submitted May 08, Response to EPA/DEQ comments received Sept. 2008. | 1,800 foot top of bank slurry wall, groundwater pump and treat system recommended. | Submitted for EPA review February 24, 2009 | Interim SCMs include AS/SVE system, initiated in-situ chem-ox treatment | | Groundwater containment system in design scheduled to be operational Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater (Hexavalent Chromium Plume) | Completed | | Completed April 07 | Pathway is complete | High | | EPA May 07 Completed | Draft focused feasibility study (ffs) for proposed hydraulic containment wall/system submitted May 08, Response to EPA/DEQ comments received Sept. 2008. | 1,800 foot top of bank slurry wall, groundwater pump and treat system recommended. | Submitted for EPA review February 24, 2009 | Interim SCMs include in-situ calcium polysulfide treatment | | Groundwater containment system in design scheduled to be operational Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater (Perchlorate Plume) | Completed | | Completed April 07 | Pathway is complete | High | | EPA May 07 Completed | Draft focused feasibility study (ffs) for proposed hydraulic containment wall/system submitted May 08, Response to EPA/DEQ comments received Sept. 2008. | 1,800 foot top of bank slurry wall, groundwater pump and treat system recommended. | Submitted for EPA review February 24, 2009 | Bench scale treatability study completed April 2008 | | Groundwater containment system in design scheduled to be operational Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater Lots 1, 2 and northern portion of Lot 3 | Ongoing | Rhone Poulenc SCE | 4th Quarter 2010 | Pathway is complete | p High | | | | | | | | | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Overland Transport/Sheet Flow | Ongoing | Part of Stormwater FFS | DEQ currently reviewing | Waiting on SCE to be completed | to be determined | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Bank Erosion | Completed | | | River Bank soil contaminant levels exceed action levels | High | | Anticipate integrating with EPA in-water action | Review of riverbank remedial alternatives in progress | Timing of SCM to be coordinated with EPA Early Action | | None | | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Stormwater | Completed | | | Contaminants in stormwater exceed screening values (AWQC) | High | | | | DEQ Water Quality Mutal Agreement and Order signed for new stormwater collection and treatment system | | Interim SCMs include BMPs, surface soil removals and surface soil caps | | Abandon existing system, update temporary caps to limit stormwater transport, construct new stormwater collection and treatment system by Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Groundwater | Ongoing | TBD | TBD | Waiting on SCE to be completed | to be determined | p Med | Waiting on SCE completion | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Stormwater | Ongoing | Stormwater Assessment | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 3342 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Groundwater | Ongoing | TBD | TBD | Waiting on SCE to be completed | to be determined | p Med | Waiting on SCE completion | | | | | | | | | |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Stormwater | Ongoing | Stormwater Assessment | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Overland Transport/Sheet Flow | Not Started | TBD | No current schedule. | N/A | to be determined | | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Bank Erosion | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Groundwater | Not Started | TBD | No current schedule. | TBD | p Med | p Med | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Stormwater | Not Started | TBD | No current schedule. | TBD | p Med | | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Other | Not Started | TBD | No current schedule. | TBD | to be determined | | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Overland Transport/Sheet Flow | Ongoing | Finish characterization by First Quarter 2011 | TBD | TBD | p Low | p Med | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Bank Erosion | Ongoing | Finish characterization by First Quarter 2011 | TBD | TBD | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Groundwater | Ongoing | Finish characterization by First Quarter 2011 | TBD | TBD | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Stormwater | Ongoing | Follow up stormwater system characterization by First Quarter 2011 | TBD | Complete | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Overland Transport/Sheet Flow | Completed | | | | Medium based on DEQ 2004 | Medium | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Bank Erosion | Completed | | | | Medium based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Groundwater | Completed | | | | TBD based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Stormwater | Completed | | | | Medium based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Overwater Activities | Completed | | | | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Other - Petroleum pipeline enters at south end of site from beneath the river | Completed | | | | Low based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA issued groundwater NFA based upon risk assessment | | No SCM needed | | | | | | EPA lead | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Groundwater/ City Storm Sewer | Completed | | | Pathway has been eliminated | none | | EPA lead | | | | | | | | | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Stormwater | Completed | | | Historically pathway existed. Current discharge insignificant pathway; no actions recommended | Low | | EPA lead | | 1) Contaminated soil removal and containment (landfill); 2) Sediment removal; 3) RCRA waste containment; 4) Removed waste pond 5) O&M ongoing | | | | | | EPA lead | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Other - Historic and Current NPDES permit | Completed | | | Historically pathway existed. Current discharge insignificant pathway; no actions recommended | Low | | EPA lead | | Removed waste pond (East Doane Lake); O&M ongoing | | | | | | EPA lead | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | High | Submitted to EPA fall 2004; no comments | | No SCM needed | | | | | | N/A | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Bank Erosion | Completed | Erodable Soils sampling conducted | Spring 2010 | Insignificant pathway; no actions recommended | Low | | Submitted to EPA fall 2004; no comments. | | | | | | | | N/A | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Groundwater | Ongoing | Chevron and Conoco conducting one GW SCE, Kinder Morgan conducting individual SCE | 2nd qtr 2011 for Kinder Morgan, 4th qtr 2010 for Chevron/Conoco | GW suspected migration pathway | High | | 1st SCE submitted to EPA fall 2004; no comments. Waiting for revised GW SCE that includes deep groundwater and new site info to be completed | no alternatives evaluation needed | Product recovery & hydraulic containment for shallow GW (sheet pile wall) | Proposed SCM submitted to EPA fall 2004; no comments | hydraulic containment and treatment | | containment system installed 2006, | | | Effectiveness monitoring and operation and maintenance on going |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Stormwater | Ongoing | Stormwater characterization started fall 07', Chevron SCE complete | 4th Quarter 2010 | Waiting on SCE to be completed at KinderMorgan and Conoco, Chevron SCE under review | to be determined | | Waiting on SCE to be completed at 3 facilities. | | Leaking stormwater covenanyce system repaired to stop GW infiltration at Conoco and KM (Saltzman creek) | | OF-22 repaired 8/09, Conoco and Ceheron site specific repairs, KM-Saltzman creek repairs | | Repair stormwater system begun 11/07 | | | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | Part of stormwater characterization | 1st Qtr 2011 | Waiting on SCE to be completed | p Low | p Med | Waiting on SCE to be completed. | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Bank Erosion | Ongoing | Additional riverbank sampling | 1st Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed. | NA | NA | | | | NA | NA | NA | NA |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Groundwater | Ongoing | Additional groundwater data needed | 1st Qtr 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | NA | NA | | | | NA | NA | NA | NA |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Stormwater | Ongoing | Stormwater characterization and evaluation | 1st Qtr 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | NA | NA | | | | NA | NA | NA | NA |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Overwater Activities | Ongoing | Pathway needs to be evaluated in SCE | 1st Qtr 2011 | Waiting on SCE to be completed | p Low | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Overland Transport/Sheet Flow | Completed | None | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Bank Erosion | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Groundwater | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Stormwater | Completed | None | NA | Complete | Low | | December 2009 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Overwater Activities | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Other | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Groundwater | Completed | N/A | N/A | Insignificant pathway; no actions recommended | Low | Low | EPA has reviewed and commented on SCD | No measures needed | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Stormwater | Completed | N/A | N/A | Pathway is complete | Low | | EPA has reviewed and commented on SCD | Completed; | In-line sediment removal; enhanced BMPs | Completed and ongoing Source control measures | BMPs such as catch basin inserts, inspection and catch | approximately 1 ton of catch basin and in-line solids removed to | Additional cleanout of line segment completed in August 2009, | August 2009; ongoing | EPA has reviewed and commented on | BMPs as documented in revised SWPCP |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Groundwater | Ongoing | None | 2nd Qtr 2011 | No known current sources (spills will be reported to OERS) | p Low | | Waiting on SCE completion | No measures needed | N/A | | | | | | | |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Stormwater | Ongoing | Working with neighboring sites to determine pipe locations, flow, ownership and conditions | 2nd Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | Pending SCE completion. Ste piping receiving contaminants from city streets | | | | | | | |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | Part of Front Ave LP site, see ESCI #1239 | | | Overland Transport/Sheet Flow | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Bank Erosion | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Groundwater | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Stormwater | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Overwater Activities | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Other | | | | | | | | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | NA | NA | NA | NA | NA | NA | NA | N/A | N/A | N/A |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Bank Erosion | Ongoing | Conducting XPA and SCE | 4thQtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Groundwater | Ongoing | Conducting XPA and SCE | 4th Qtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Stormwater | Ongoing | Conducting XPA, additional sampling needed for SCE completion | 4th Qtr 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| US Navy Reserve | 5109 | 8.2 W | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Overland Transport/Sheet Flow | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | p Med | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 W | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Bank Erosion | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Groundwater | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Stormwater | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Overwater Activities | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Other | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | | 4th Quarter 2010 | Insignificant pathway; no actions recommended | p Low | p Med | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Bank Erosion | Ongoing | | 4th Quarter 2010 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Groundwater | Ongoing | | 4th Quarter 2010 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Stormwater | Ongoing | Sampling stormwater system | 4th Quarter 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Overwater Activities | Ongoing | | 4th Quarter 2010 | No known current sources (spills will be reported to OERS) | Low | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Bank Erosion | N/A | | | N/A | none | | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Stormwater | Completed | | | Insignificant pathway | Low | | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | No known current sources (spills will be reported to OERS) | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Bank Erosion | N/A | N/A | No current schedule. | No known current sources (spills will be reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Groundwater | N/A | N/A | No current schedule. | No known current sources (spills will be reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Stormwater | Ongoing | Complete stormwater system characterization | 4th Qtr 2010 | to be determined | p Low | | Waiting on SCE to be completed. | | | BMPs such as catch basin inserts, inspection and catch basin cleanout on periodic basis | | | | | | | |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner Truck Plant | 2366 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Freightliner Truck Plant | 2366 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner Truck Plant | 2366 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Groundwater | Ongoing | determine nature and extent of VOC plume | 4th Qtr 2010 | Waiting on SCE/RI report to be completed | p Low | | Waiting on SCE/RI to be completed. | | | | | | | | | |
| Freightliner Truck Plant | 2366 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Stormwater | Ongoing | SW evaluation started 07' | 1st Qtr 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | RP voluntarily applying SW engineering controls on Ensign Street Outfall; coating metal roof; stormwater system sediment cleanout 06-07' prior to completing screening | | | | | | | |
| Freightliner Truck Plant | 2366 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner Truck Plant | 2366 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/11/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Bank Erosion | Ongoing | Prepare SCE report | To be determined | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE completion | | | | | | | | | |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Groundwater | Ongoing | Prepare SCE report | To be determined | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | UIC closures in 2003 | | | | | | | |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Stormwater | Ongoing | Initiate stormwater evaluation | To be determined | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | Interim SCM; stormwater UICs | | | | | | | |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Overwater Activities | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Overland Transport/Sheet Flow | To be evaluated by Port of Portland. | N/A | N/A | N/A | N/A | p Med | N/A | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Bank Erosion | To be evaluated by Port of Portland. | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Groundwater | To be evaluated by Port of Portland. | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Stormwater | Ongoing | Draft SCE in review | 4th Qtr 2010 | Complete | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Overwater Activities | Ongoing | Draft SCE Submitted 4/10 in review | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Other | N/A | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Overland Transport/Sheet Flow | Ongoing | OU-1 SCE in prepartaion, OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | p Med | Waiting on SCE to be completed | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Bank Erosion | Ongoing | OU-1 SCE in prepartaion, OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completd | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Groundwater | Ongoing | OU-1 SCE in prepartaion, OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completd | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Stormwater | Ongoing | OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted on 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completd | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Overwater Activities | Ongoing | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Mt Hood Chemicals | 81 | 8.5 W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Groundwater | Ongoing | Compliance Monitoring of groundwater and sub slab vapors. Treatment of groundwater by Hydrogen Release Compound and Vapor extraction | 4th Qtr 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting on SCE to be completed | | Operating insitu groundwater VOC treatment HRC and vapor extraction system | | Operating insitu groundwater VOC treatment HRC and vapor extraction system December 2010 | | SCM Complete | December 2010 | Schedule for completing final evaluation report: December 2010 | periodic inspection and maintenance |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Stormwater | Ongoing | SCE Work Plan and implementation | 4th Qtr 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting on SCE to be completed | | | | | | | | | |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Other | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | NFA | 07/27/10 | Overland Transport/Sheet Flow | Completed | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | NFA | 07/27/10 | Bank Erosion | Completed | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | NFA | 07/27/10 | Groundwater | Completed | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | PPA | SCE | 07/27/10 | Stormwater | Ongoing | None | | Complete | Low | Low | SCD document needs to be prepared by DEQ schedule TBD | | PPA with City of Portland requires ongoing erosion control pending site development | | | | | | | |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | N/A | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | N/A | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Groundwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 08/02/10 | Stormwater | Completed | | | Pathway is complete | Medium | Medium | EPA reviewed and commented on preliminary SCD, 6/2004 | alternatives evaluation completed, submitted to EPA 9/2005 | stormwater catch basin in-line cleanout, stormwater BMPs, monitoring | SCM SCD finalized 11/2005, EPA commented | stormwater catch basin in-line cleanout, stormwater BMPs, monitoring | | New data resulted in DEQ reopening project and reviewing the adequacy of the 2005 source control action. Re-evaluate stormwater solids fall 2010 | | EPA reviewed and commented 11/2005 | |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product Pipeline | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product Pipeline | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Groundwater | Ongoing | Review of Gulids Lake Rail Yard data and Gunderson data | 4th quarter 2010 | Waiting on SCE to be completed | p Low | p Low | Waiting for SCE to be completed | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Texaco Product | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Stormwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product Pipeline | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditinnal NFA 2004 | 11/04/09 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditinnal NFA 2004 | 11/04/09 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | N/A | | No SCM needed | | | | | | | |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | None | conditional NFA 2004 | 11/04/09 | Stormwater | Deferred | Stormwater characterization | No current schedule. | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | | | | | | | | | |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditinnal NFA 2004 | 11/04/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Groundwater | Ongoing | Part of Stormwater Assessment | 3rd Qtr 2011 | to be determined | to be determined | p Med | Waiting on SCE to be completed; | | Product recovery from groundwater - dual phase extraction | | | | | | | |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Stormwater | Ongoing | Storm water sampling per JSCS and evaluation of groundwater preferential flow to storm sewer | 3rd Qtr 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed; | N/A | Storm water BMPs and filtering catch basin sediment | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Groundwater | Ongoing | 2nd Quarter 2011 | 2nd Quarter 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting for SCE to be completed. | | | | | | | | | | |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Stormwater | Ongoing | Evaluating groundwater infiltration to storm sewer system | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | | |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Coreective Action Order | Corrective Measures Implementation | 08/05/10 | Overland Transport/Sheet Flow | N/A | NA | NA | NA | None | | N/A | | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Bank Erosion | N/A | NA | NA | NA | None | | N/A | | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Groundwater | Completed | | | Groundwater under control | | to be determined | NA | Corrective Measures Study Completed 4/21/06 | Soil Vapor Extraction and Groundwater Pump and Treat | Completed | Soil Vapor Extraction and Groundwater Pump and Treat | 468,000 lbs | Optimization of SVE and Groundwater Extraction Systems/2008 through 2010 | | EPA notes that the discovery of NAPL warrants a re-evaluation fo the remedy - schedule for this is in development | Ongoing maintenance of SVE wells, extraction wells and treatment system |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Stormwater | Ongoing | Stormwaer Pathway Evaluation | 1st Quarter 2011 | Waiting on SCE to be completed | | | NA | Planned for 2nd Quarter 2011 | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Overwater Activities | N/A | NA | NA | NA | None | | NA | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Other | | | | | | | | | | | | | | | | |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Groundwater | Ongoing | GW investigation ongoing | 3rd Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Stormwater | Ongoing | SW investigation ongoing; | 3rd Qtr 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting on SCE to be completed | | | | | | | | | |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overland Transport/Sheet Flow - Area 1 | N/A | N/A, entirely paved and/or developed | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overland Transport/Sheet Flow - Area 2 | Ongoing | DEQ review of Focused Area 2 RI report & source control screening | TBD pending DEQ's review of Focused Area 2 RI report | Pathway is complete | p High | | Waiting on SCE to be completed. | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overland Transport/Sheet Flow - Area 3 | Ongoing | DEQ review of Focused Area 3 RI report & source control screening | TBD pending DEQ's review of Area 3 RI report | Pathway is complete | p High | | Waiting on SCE completion | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Bank Erosion - Area 1 | Ongoing | Survey of erodible soils, follow-up sampling | 1st Quarter 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Bank Erosion - Area 2 | Ongoing | Bank characterization needs to be completed. | 1st Quarter 2011 | Pathway is complete | High | | | 2 FFS's drafted and rejected by DEQ for lack of data, sampling work plans and FFS revisions pending. | Final SCMs TBD. Interim SCMs being considered: excavation of soil/blastsand grit, engineered sediment/grit traps, selected area revegetation, and additional operations reviews & improvements. | | Interim SCM currently includes shrouding work areas during barge welding & sandblasting. | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Bank Erosion - Area 3 | Ongoing | Bank characterization needs to be completed. | 1st Quarter 2011 | Pathway is complete | High | High | | Gunderson working on Area 3 FFS revisions based on Area 2 FFS comments. | Final SCMs TBD. Interim SCMs being considered include soil excavation, selected area revegetation, and engineered bank stabilization. | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overwater Activities - Area 3 | N/A | N/A | N/A | No known current sources (spills will be reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Groundwater - Area 1 | Ongoing | Complete site wide groundwater screening to update sampling program | 1st Qtr 2011 | Groundwater is a complete pathway, VOC plume migrating to/under river. | p Med | | EPA comments received 5/03 | Alternatives evaluation completed, EPA comments received 5/2003 | Hydraulic containment and source removal using air- | SCD submitted to EPA 2/2003, EPA comments received 5/2003 | P&T and AS/SVE systems installed and operating | ~40 lbs. of HVOCs removed as of 7/07 | Conduct SCMs effectiveness evaluation(s). Schedule TBD. | | | Quarterly performance monitoring and reporting |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Groundwater - Area 2 | Ongoing | RI in review, also see comment for Area 1 | 1st Qtr 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Groundwater - Area 3 | Ongoing | RI in review, also see comment for Area 1 | 1st Qtr 2011 | Pathway is complete | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Stormwater - Area 1 | Ongoing | Review stormwater sampling plan (10/08) and catch basin sediment sampling report (01/08) | 2nd Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | | Interim SCMs being evaluated | | Current BMPs include catch basin filter inserts & annual clean-out of catch basins | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Stormwater - Area 2 | Ongoing | Upgrade SW system around launchways - piping and treatment | 2nd Quarter 2011 | Pathway is complete | p High | | Waiting on SCE to be completed. | | Interim SCMs in design include, legacy sediment piping cleanouts | | Current BMPs include catch basin filter inserts, annual clean-out of catch | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Stormwater - Area 3 | Completed | | 2nd Quarter 2011 | Pathway is complete | High | | | TBD pending DEQ's review of RI report and 2008/2009 storm water system sampling reports | Final SCMs TBD & interim SCMs being considered include. | | Current BMPs include catch basin filter inserts, annual clean-out of catch | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Groundwater | Ongoing | Review draft Groundwater SCE | 1st Qtr 2011 | to be determined | p Low | | | | | | | | | | | |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Stormwater | Ongoing | Additional stormwater sampling needed | 1st Qtr 2011 | Waiting on SCE to be completed | to be determined | | | | RP voluntary cleanout of stormwater system prior to completing screening | | | | | | | |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Groundwater Investigation of Dry Wells Only | Ongoing | Complete characterization | TBD | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | | | | | | | | |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Stormwater | Ongoing | Complete characterization | TBD | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Container Management | 4787 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Other | N/A | N/A | No current schedule. | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion (m-y) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | n/a | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Groundwater | Completed | N/A | N/A | Incomplete pathway | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Stormwater | Completed | None | SCE will be submitted with performance monitoring expected 3rd Qtr 2011 | Pathway is complete | p Low | | Waiting on SCE completion | Waiting on SCE completion | Line Cleanout completed and new stormwater system constructed 2010 | pending SCD | Line Cleanout completed | 3,740 gallons of standing water and storm line cleanout water removed; 2.50 tons in-line sediment disposed of as F-listed waste | Performance monitoring 4th Qtr 2010 - 2nd Qtr 2011 | TBD | TBD | TBD |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3250 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3250 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3251 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Groundwater | N/A | N/A | NA | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3252 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Stormwater | Ongoing | Work plan under review | 4th Quarter 2010 est | to be determined | p Med | | Waiting on SCE completion | | | | | | | | | | |
| Wilhelm Trucking | 69 | 9.3W | 3253 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overwater Activities | N/A | N/A | NA | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3250 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Other | N/A | N/A | N/A | N/A | N/A | | N/A | NA | NA | NA | NA | NA | NA | NA | NA | NA | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Groundwater | Ongoing | Review draft SCE | 3rd Quarter 2011 | N/A | p Low | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Stormwater | Completed | | 2/06 SCE Report submitted | Pathway is complete | Medium | Medium | Done | SCM implementation report summer 2007 | Removal of PCB contaminated sediment from onsite catch basins and pipes, new CBs/filters, new pipes, paving | | 1st qtr. 2007 | | | 11/25/08 Post-SCM monitoring completed | | Continued BMPs |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A, site located ~4,500 feet from river | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Bank Erosion | N/A | N/A, site located ~4,500 feet from river | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Groundwater | Ongoing | Draft SCE in review | 4th Qtr 2010 | Pathway is complete | p Med | p Med | Waiting on SCE to be completed. | | | | | | | | | | |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Stormwater | Ongoing | Draft SCE in review | 4th Qtr 2010 | Pathway is complete | p Med | | Waiting on SCE to be completed. | | Stormwater RX System Installed and Operational | | Collecting/reusing Main Plant canopy roof run-off in galvanizing process (5/07), repairing/sealing pavement in NE plant yard (8/07). | | Sealing unused/unecessary connections to City piping (Winter 2008), site paving and pavement sealing (Summer 2008) | Stormwater RX operating January 2010 | | Maintenance of Stormwater RX System |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Overwater Activities | N/A | N/A, site located ~4,500 feet from river | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.8 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.8 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.8 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Groundwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.8 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Stormwater | Completed | N/A | | No current pathway; legacy solids in storm lines to be investigated | Low | Low | Waiting on SCE completion | | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 08/02/10 | Groundwater | Ongoing | | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 08/02/10 | Stormwater | Ongoing | Evaluate stormwater system | 4th Qtr 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Medium | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Groundwater | Ongoing | Two quarters of GW monitoring complete. Final report due in October 2010. No significant issues. | December 2010 | Pathway is complete | none | | Waiting on SCE completion (m-y) | evaluation to be part of upland FS; schedule for completing draft/final: December 2010 | No SCM needed | June 2011 Tenative Date | N/A | N/A | N/A | N/A | Review Pending. SCA not submitted. | no alternatives evaluation needed |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Stormwater | Ongoing | Pilot study to evaluate surface washing of PCB contaminaiton is complete. Focused Feaseability Study in production. Most likely surface capping and SW treatment. | No current schedule. | Pathway is complete | Medium | | Waiting on SCE completion (m-y) | evaluation to be part of upland FS; schedule for completing draft/final: August 2011 | stormwater catch basin in-line cleanout, stormwater BMPs, asphalt and concrete surface capping/sealing, Stormwater RX System Installation, and monitoring | June 2011 Tenative Date | stormwater catch basin in-line cleanout, stormwater BMPs, monitoring | | ongoing stormwater monitoring through spring 2011 | August 2011 | Review Pending. SCA not Submitted. | effectiveness monitoring |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | Submitted | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | p Low | p Low | Waiting on SCE to be completed | | | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Bank Erosion | Submitted | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Groundwater | under revision | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Stormwater | Submitted | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | to be determined | | Waiting on SCE to be completed | | RP cleaned out stormwater system prior to completion of | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | N/A | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | N/A | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | N/A | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA commendted on SCD in 10/06 | Source Control Decision and NFA issued 12/6/06 | | | | | | | | | |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Stormwater | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Overland Transport/Sheet Flow | N/A | Qualitative Assessment | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Bank Erosion | Completed | None | Pending completion of storm water evaluation | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Groundwater | Ongoing | Need for additional evaluation and possible sampling | 4th Quarter 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Stormwater | Ongoing | Complete SCE sampling and reporting | 4th Quarter 2010 | Waiting on SCE to be completed | p Med | p Med | Waiting on SCE to be completed | | Storm line and catch basin cleanout | | Cleanout completed in Oct 2006 | 25 tons of sludge | twice annual cleaning of catch basins | | | periodic inspection and maintenance; twice annual cleanout | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | p Low | p Low | Waiting on SW SCE to be completed | | | | | | | | | | |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | RI | 09/01/10 | Stormwater | Ongoing | Complete stormwater sampling by BES | 4th Qtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA did not review SCD since site was outside PH | | Soil removal and management plan during development; Deed restrictions | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Overwater Activities | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | | | | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | | | | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Groundwater | Ongoing | PA in progress | 4th quarter 2010 | Waiting on SCE to be completed | p Low | | | | | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Stormwater | Ongoing | Soil abatement and stormwater monitoring | 1st Qtr 2011 | Waiting on SCE to be completed | p Med | | | | Selected soil removals in progress | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | | | | | | | | | | |

# DEQ Milestone Report
# Information about the Source Control Table

## Use Of This Sheet

This spreadsheet is intended to track and share information regarding the status of current and potential future upland source control measures. Information is logged by the status of the evaluation in each pathway. The following pathways are included: overland transport, back erosion, groundwater, stormwater, overwater activities, and other (see definitions below). Site included in this spreadsheet are currently being investigated under DEQ oversight or a recent source control decision made for the facility. For more information on these sites please visit DEQ's Environment Cleanup System Information (ECSI) database at http://www.deq.state.or.us/wmc/ECSI/ecsiquery.htm

## Definitions

### Potential contaminant migration pathways

**Overland Transport** = Uncontrolled sheet flow of water and other material to the river from a site.
**Bank Erosion** = Erosion of material within the sloping bank areas of the site to the river.
**Groundwater** = Groundwater plumes or discharges to the river either via seeps or through preferential pathways.
**Stormwater** = Stormwater discharges to the River that originates from a pipe (permitted or unpermitted).
**Overwater Activities** = The storage or use of hazardous substances over the water (i.e., storage tanks on docks, permanent work activities conducted over water), that if released would be a ptotential current or future source of contamination to the river. Pipelines and other conveyance systems are not considered in this category. Releases from these types of systems need to be reported to the state Oregon Emergency Response System (OERS) system.
**Other** = Pathway examples: wastewater discharges, air deposition, direct discharges.

### Priority levels for pathways and sites

**High** = High priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is significantly impacting the river or poses a significant and imminent threat to the river based on initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS). A primary consideration is that one or more media (soil, water, air) significantly exceed applicable Screening Level Values (SLVs) at the point of discharge to the river (e.g., water at the end of a discharge pipe, or soil or material at the riverbank) or the most reliable and cost-effective data point (e.g., groundwater measured at the shoreline), or where a bioaccumulative chemical is detected at concentrations significantly above the SLV. In addition, if an upland source is violating DEQ narrative water quality criteria for the Willamette River, the site may be considered a high priority. High priority sites are expected to move forward with aggressive source control measures without delay or be subject to enforcement action.
**Medium** = Medium priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is impacting the river or poses a significant and/or imminent threat to the river based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS). A primary consideration is that one or more media exceed applicable SLVs, but not significantly, at the point of discharge to the river, or where a bioaccumulative chemical is detected at concentrations above the SLV. Although exceedance of SLVs does not necessarily indicate a site poses a significant and/or imminent threat or needs to immediately implement source control measures, it does indicate that the site may pose a threat to human health or the environment and that additional evaluation may be needed to determine if source control measures are required to prevent, minimize or mitigate the migration of hazardous substances to the river. If the site exceeds one or more SLVs, the need for further characterization or for implementation of source control measures will be based on a site-specific weight-of-evidence determination. Medium priority sites are expected to perform a weight-of-evidence evaluation to determine if source control measures are required.

**Low** = Low priority pathways and sites are those where upland data indicate, based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS), that the site likely poses a low threat to the river (e.g., concentrations are near or below SLVs) or where DEQ, in consultation with EPA, may issue an upland "No Further Action" (NFA) determination or lower the State's priority of the site for further upland investigation or remedial action under DEQ's cleanup authority. Source control measures will not be required at low priority sites unless determined necessary by the results of the Portland Harbor RIFS or ROD.

**p High** = DEQ's preliminary determination is that this is likely a high priority pathway or site based on available information; pending formal source control evaluation determination.

**p Med** = DEQ's preliminary determination is that this is likely a medium priority pathway or site based on available information; pending formal source control evaluation determination.

**p Low** = DEQ's preliminary determination is that this is likely a low priority pathway or site based on available information; pending formal source control evaluation determination.

## Shading

= Upland Source Control Decision has been completed for the specified pathway at this site.

# DEQ Milestone Report
# Information about the Source Control Table

## Pick Lists

Pick lists are used to faciliate the addition of information to the spreadsheet. A pick list is a list that can be used by the project manager to select an entry from a group of designated choices. Pick lists will appear as a pull down menus in the lower right corner for the following fields: *Project status, Status of SCE, Schedule for Completing SCE, Completeness of pathway to the river, Pathway priority level, Site priority level, Source control alternatives evaluation and schedule, Selected SCMs, Mass or volume of contaminants controlled,* and *Operation and maintenance requirements*. The pick lists for these fields are shown below.

| Project Status |
|---|
| PA |
| XPA |
| RI |
| FS |
| RD / RA |
| NFA |
| PPA |
| CNFA |

| Status of SCE |
|---|
| Ongoing |
| Not Started |
| Pending EPA Review |
| Completed |
| N/A |

| Schedule for completing SCE |
|---|
| No current schedule. |
| SOW under development, due (type |
| SOW currently being implemented. |
| (PM description of schedule) |
| N/A |

| Pathway determination |
|---|
| Pathway is complete |
| Insignifcant pathway; no actions recommended |
| Waiting on SCE to be completed |
| No known current sources (spills will be reported to OERS) |
| (PM description of source and pathway) |
| N/A (use when the pathway does not exist at the site) |

| Alternatives evaluation and schedule |
|---|
| no alternatives evaluation needed |
| schedule for completing draft evaluation report: |
| schedule for completing final evaluation report: (m/y) |
| evaluation to be part of upland FS; schedule for completing draft/final: (m/y) |
| alternatives evaluation completed (m/y) |

| Priority level |
|---|
| High |
| Medium |
| Low |
| p High |
| p Med |
| p Low |
| to be determined |
| none (use if SCE determined the pathway to be incomplete) |

| Status of EPA "Partners" Review of SCA Decision |
|---|
| EPA reviewed and commented. |
| Review Pending. SCA submitted (type date). |
| SCA to be submitted on (type date). |
| Public Comment period (type date) to (type date). |
| SCA submitted to EPA ( type date). No comments. |
| N/A |

| Status of EPA review of SCE decision |
|---|
| Review pending; SCE submitted (m-y) |
| Waiting on SCE completion (m-y) |
| SCE to be submitted to EPA on (m-y) |
| To be determined |
| SCE submitted to EPA (m-y); no comments |
| N/A |

| Selected SCMs |
|---|
| No SCM needed |
| (PM description of SCMs) |
| N/A |

| Operation and Maintenance requirements |
|---|
| periodic inspection and maintenance |
| effectiveness monitoring |
| site use restrictions |
| (PM description of operation/maintenance requirements) |
| none |

| Mass/Volume of contaminants controlled |
|---|
| cubic yards of soil removed |
| square feet of area capped |
| linear feet of plume controlled at riverbank |
| linear feet of riverbank stabilized |
| gallons of product recovered |
| (PM description of mass/volume/area controlled) |

## DEQ Milestone Report
## Information about the Source Control Table

**Acronyms & Abbreviations**

| | |
|---|---|
| Agr | Agreement |
| AOC | Administrative Order on Consent |
| AS/SVE | Air sparge soil vapor extraction |
| AST | Above ground Storage Tank |
| BMPs | Best Management Practices |
| BRA | Baseline Risk Assessment |
| CNFA | Conditional No Further Action |
| ECSI | Environmental Cleanup Site Information |
| FS | Feasibility Study |
| GW | Groundwater |
| IGA | Inter-Governmental Agreement |
| JSCS | Joint Source Control Strategy |
| NA | Not Applicable |
| NFA | No Further Action |
| OF | Outfall |
| p&t | Pump & Treat |
| PA | Preliminary Assessment |
| PH | Portland Harbor |
| PH Agr | Portland Harbor Agreement - a formal agreement for a RI and SC |
| PH Ltr Agr | Portland Harbor Letter Agreement - an initial contract covering DEQ oversight costs and limited investigation and cleanup activities |
| PM | Project Manager |
| PPA | Prospective Purchaser Agreement |
| RD/RA | Remedial Design/Remedial Action |
| RI | Remedial Investigation |
| RI/FS | Remedial Investigation/Feasibility Study |
| SC | Source Control |
| SCD | Source Control Decision |
| SCM | Source Control Measure |
| SLV | Screening Level Value |
| SOW | Scope of Work |
| SVE | Soil Vapor Extraction |
| TCA | Trichloroethane |
| UST | Underground Storage Tank |
| WO | Waiting on |
| XPA | Expanded Preliminary Assessment |

**DEQ Project Managers' Phone Numbers**

| | |
|---|---|
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# DEQ Source Control Decisions
# Current and Potential Upland Sources to the River

## Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| | | | | | |
| Wilhelm Trucking | | 69 | | 9.3 | 3250 and 3074 NW St. Helens Road |
| McCall Oil | | 134 | | 7.8 | 5550 NW Front |
| NW Pipe Company | | 138 | | 3.9 | 12005 N Burgard |
| ACF Industries | American Car Foundry, EMC Industries - ACF Car, Pacific Metal Substations, Inc., Richmond Tank Car and Manufacturing Co | 794 | | 3.6 | 12160 NW St Helens |
| Air Liquide | Schnitzer Investment - Doane Lake | 395 | | 7.2 | 6529 NW Front Ave. |
| Anderson Brothers | | 970 | | 8.9 | 5275 & 5315 NW St. Helens Road |
| Atofina | Arkema, Elf Atochem North America, Pennwalt Chemical Corp. | 398 | | 7.2 | 6400 NW Front |
| Galvanizers Company | | 1196 | | 9.6 | 2406 NW 30th Ave. |
| BP Terminal 22T | ARCO, ARCO Linnton Terminal, BP Atlantic Richfield Company | 1528 | 2373, 2351 | 4.8 | 9930 NW St Helens |
| Brix Maritime | Foss Maritime Co., Knappton Corp. | 2364 | | 5.5 | 9030 NW St Helens |
| Schnitzer Burgard Industral Park | | 5324 | | 3.8 | 12005 N Burgard |
| Schnitzer Steel | Schnitzer Burgard Industral Park | 2355 | | 4 | 12005 N Burgard |
| Lakeside Industries | | 2372 | | 8.4 | 4850 NW Front Ave. |
| Calbag Metals | ACME Trading and Supply | 2454 | 2425 | 8.5 | 4927 NW Front |
| Chevron Asphalt | | 1281 | | 8 | 5501 NW Front |
| Christensen Oil | HAJ, Incorporated | 2426 | | 8.9 | 3821 NW St Helens |
| City of Portland Outfalls | | 2425 | | 3.5 to 9.2 | various |
| Columbia American Plating | | 29 | | 9.3 | 3003 NW 35th Ave. |
| Con-Metco | | 3295 | | 2.8 | 3940 N Rivergate |
| Container Management | | 4784 | | 9.3 | 3000 NW Saint Helens Rd. |
| Container Recovery | | 4015 | | 8.8 | 3900 NW Yeon |
| Crawford Street Corp | Columbia Forge & Machine Works, Lampros Steel - 8524 N Crawford, TLS Steel - 8514 N Crawford | 2363 | | 6.3 | 84248 N Crawford |
| Esco Landfill | | 4409 | | NA | 14444 NW Gilliam Loop Rd. |
| Exxon Mobil | ExxonMobil Bulk Plant, ExxonMobil Terminal, Mobil NuStar Oil Bulk Plant - St. Helens RD, Shore Terminals, ST Services, Olympic Pipeline | 137 | | 5.1 | 9420 NW St Helens |
| Fred Devine | Pacific Coast Environmental, The Marine Salvage Consortium Inc | 2365 | | 8.3 | 6211 N Ensign |
| Freightliner (Parts Manufacturing Plant) | a.k.a. Freightliner Truck Manufacturing Plant II | 115 | | 9.2 | 5400 N Basin |
| Freightliner (Truck Plant) | | 2366 | | 8.3 | 6936 N. Fathom |

## DEQ Source Control Decisions
## Current and Potential Upland Sources to the River

### Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| Front Ave LP | CMI Northwest, Hampton Lumber Sales, Glacier NW (former Lone Star), Tube Forgings of America | 1239 | 2378 | 8.2 | 4950, 5034 & 5200 NW Front |
| Galvanizers Company | | 1196 | 2425 | 9.6 | 2406 NW 30th Ave. |
| Gasco | NW Natural, Koppers Co. - Portland, Pacific Northern Oil Co. | 84 | 183 | 6.4 | 7900 NW St Helens |
| Gasco/Siltronic Corp. | Siltronic Corporation, Walker Siltronic | 183 | 84 | 6.6 | 7700 NW Front |
| GE Decommissioning | | 4003 | 2425 | 9.5 | 2727 NW 29th Ave. |
| Georgia Pacific Linnton | Georgia-Pacific / Western Wood Prods Manuf Divn, Georgia-Pacific West, Morge Bros. | 2370 | | 3.5 | 12222 NW Marina |
| Goldendale Aluminum | Ash Grove Cement, Columbia Aluminum, Martin Marietta, Golden NW Aluminum | 2440 | | 10.3 | 2600 N River |
| Gould Electronics | NL Industries | 49 | | 7.5 | 5909 NW 61st Ave. |
| GS Roofing | Bird & Son, Certainteed Corporation, Fibreboard Corporation | 117 | | 7.5 | 6350 NW Front |
| Guilds Lake RR Yard | Burlington Northern Santa Fe Railroad Lake Yard, Guilds Lake Railyard, Kleen Blast Abrasives, Lake Yard, Portland Terminal Railroad Guilds Lake Yard | 100 | | 9 | 3500 NW Yeon |
| Gunderson | | 1155 | 2372, 2425 | 9.0 | 4350 SW Front |
| Mt. Hood Chemical | Former Chemical Warehouse RI/SC | 81 | | 8.5 | 4444 NW Yeon |
| Jefferson Smurfit | Burgard Industrial Park | 2371 | | 3.7 | 9930 N Burgard |
| Kinder Morgan | GATX, GATX Linnton Terminal, GATX St. Helens Road Facility | 1096 | | 4.2 | 11400 NW St Helens |
| Lakeside Industries | | 2372 | 1155 | 8.4 | 4850 NW Front |
| Linnton Oil Fire Training Grounds | | 1189 | | 3.6 | NW Marina Way |
| Linnton Plywood | | 2373 | | 4.6 | 10504 NW St Helens |
| Mar Com Marine (N Parcel) | L & S Marine, Mar Com Marine Ways, Marine Machine Works (Former), Nichols Marine Ways Inc., Riverside Lumber Co. (Former) | 2350 | | 5.6 | 8790 N Burgard |
| Mar Com (S Parcel) | St. Johns Langley LLP, Brix (current owner), L & S Marine, Mar Com Marine Ways (former owner), Marine Machine Works (Former), Nichols Marine Ways Inc., Riverside Lumber Co. (Former) | 2350 | | 5.8 | 8790 N Burgard |
| Marine Finance | Hendren Tow Boat, REH Inc., Riverside Industrial Park, Advanced American | 2352 | | 5.8 | 8444 NW St Helens |
| McCall Oil | Great Western Chemical, Quadra Chemicals | 134 | | 7.8 | 5550 NW Front |
| McCormick & Baxter | | 74 | | 7 | 6900 N. Edgewater Street |
| NW Pipe | Northwest Pipe Company | 138 | | 3.9 | 12005 N Burgard |
| Oregon Steel Mills | Gilmore Steel Corp. - Rivergate | 141 | | 2.2 | 14400 N Rivergate |
| Owens-Corning Fiberglass | Trumbull Asp, Kingsley Park, Linnton Planing Mill, Paramount Petroleum Site | 1036 | | 3.8 | 11444 NW St Helens |
| Pacificorp | | 5517 | | 11.6 | various |

## DEQ Source Control Decisions
## Current and Potential Upland Sources to the River

### Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| Paco Pumps | | 146 | | 9.6 | 2551 NW 30th |
| PGE Harborton | | 2353 | | 3.2 | NW Marina Way |
| PGE Forest Park | | 2406 | | 8.5 | 4400 Block NW St. Helens Road |
| PGE Station E | | 3976 | | 10.4 | 2635 NW Front Ave. |
| Port of Portland Auto Storage Area (ASA) | Toyota | 2642 | | 5.0 | 10400 Lombard |
| Portland Shipyard | Cascade General, Swan Island Upland Facility, North Channel Ave Fabrication, Berth 311 | 271 | | 8.4 | Swan Island |
| Premier Edible Oils | C & T Quincy Foods (SEE ECSI 2355), Schnitzer Investment Corp. | 2013 | 2355 | 3.6 | 10400 N Burgard |
| Rhone Poulenc | East Doane Lake, Aventis Crop Science, Rhone Poulenc Agricultural Company | 155 | | 7 | 6200 NW St Helens |
| Riverscape | Port of Portland T1S | 2642 | | 10.9 | 2100 NW Front |
| Schnitzer Steel | Schnitzer Steel Part of Industrial Park DEQ Site | 2355 | | 3.8 | 12005 N Burgard |
| Schnitzer Burgard | International Terminals, North Burgard Industrial Park | 5324 | | 3.8 | 12005 N Burgard |
| Schnitzer Kittridge | Asset Recovery, Schnitzer Investment Corp | 2442 | | 8.3 | 4959 NW Front |
| Shaver Transportation | | 2377 | | 8.4 | 4900 NW Front |

## DEQ Source Control Decisions
## Current and Potential Upland Sources to the River

### Site Location Key

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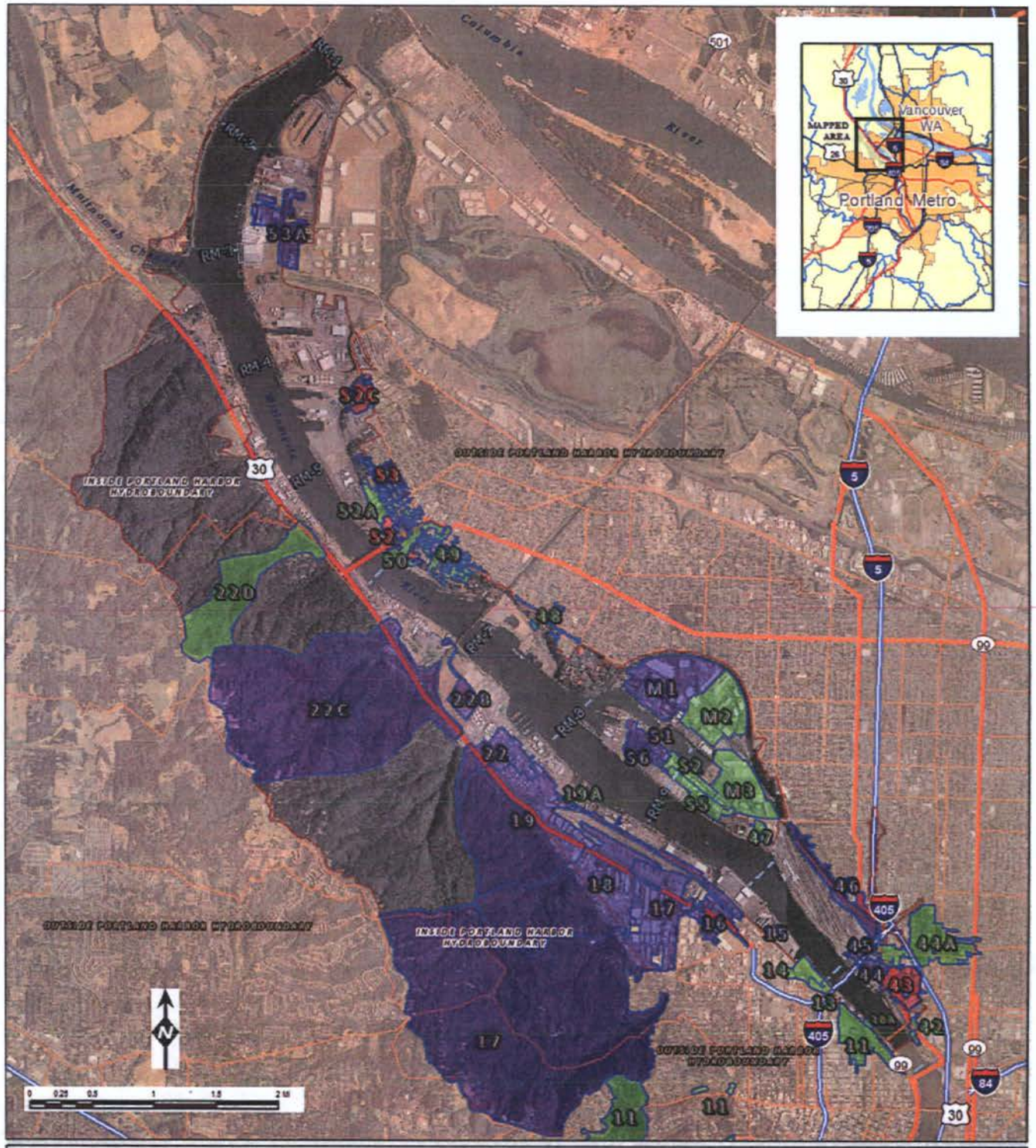
| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| Siltronic Corp. TCE Investigation | Siltronic Corporation, Walker Siltronic | 183 | | 6.5 | 7200 NW Front |
| Sulzer Pump | Bingham International, Bingham Willamette, Sulzer Pumps, Inc. | 1235 | | 10.4 | 2800 NW Front |
| Terminal 1 North | BES- Nicolai Shaff | 3377 | | 10.6 | 2200 NW Front |
| Terminal 2 | | 2769 | | 10 | 3556 NW Front |
| Terminal 4 Slip 1 | IRM, Cargill | 2356 | | 4.3 | 11040 N Lombard |
| Port of Portland - Terminal 4 Slip 3 | Hall-Buck Marine Inc., Oregon Terminal Company (OTC), OTC Gearlock Maintenance Facility (Former), Quaker State Oil Co., UPRR - Product Transfer Pipeline (Former) | 272 | | 4.6 | 10400 Lombard |
| Terminal 5 | Oregon Steel Mills Slag Pile, Port of Portland - Terminal 5, Blue Lagoon | 1686 | | 1.5 | 15540, 15550, & 15560 N Lombard |
| TexacoTerminal | Equilon, Shell, Texaco Product Pipeline | 169 | 2117 | 8.7 | 3800 NW St Helens |
| Time Oil (Northwest Terminal) | Bell Terminal | 170 | | 3.4 | 10350 Time Oil Rd |
| Triangle Park (N PDX Yard) | North Portland Yard, Riedel Environmental Services - N Portland Yard, Sakrete of the Pacific Northwest, Inc., Western Pacific Dredging/Drilling/Piledriving/etc., Willamette-Western Company, World Security Services Company | 277 | | 7.5 | 5828 N Van Houten |
| UPRR Albina | Albina Rail Yard, Union Pacific RR - Albina Yard | 178 | | 10.3 | 2745 N Interstate |
| UPRR St Johns Tank Farm | Union Pacific RR - St. Johns Tank Farm, UPRR - Product Transfer Pipeline (Former), UPRR Fuel Loading Facility (Former), Port of Portland Terminal 4 Slip3 | 2017 | | 4.6 | 6908 N Roberts |
| USCG | US Coast Guard - Portland Station | 1338 | | 8.2 | 6767 N Basin Ave. |
| US Moorings | | 1641 | | 6.2 | 8010 NW St. Helens Rd. |
| Willamette Cove | | 2066 | | 6.8 | Foot of N Edgewater |
| Willbridge | Kinder Morgan, Chevron, ConocoPhillips, GATX - Willbridge Terminal, Tosco - Willbridge Terminal, Unocal - Willbridge Terminal | 1549 | | 7.7 | Front Ave & NW Doane |
| Vanwater and Rogers | Univar | 330 | | 9 | 3950 NW Yeon Ave. |
| | | | | | |
| Willamette Cove | | 2066 | | 6.8 | Foot of N Edgewater |
| Calbag Metals | | 5059 | | 10.1 | 2495 Nicholai St. |
| US Navy Reserve | | 5109 | | 8.2 | 6735 North Basin Avenue |
| Shore Terminals | | 5130 | | 5.4 | 9400 NW Saint Helens Rd. |
| | | | | | |

## Status of High Priority Sites

Table 2

| | Site | River Mile | High Priority Pathway | Source Control Evaluation | Selection of Source Control Measure | Implementation of Source Control Measure | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | Oregon Steel Mills | 2.2E | Bank erosion | Complete | -Currently considering re-design incorporating bioengineering based largely on satisfying ESA concerns | -Summer 2011 or 2012 | |
| | | | Stormwater | Complete | -Complete | -End-of-pipe treatment system operating since summer '07.<br>-System expanded in 2008.<br>-Loading evaluation to be conducted in 2010-11 water year. | |
| 2 | City Stormwater Outfalls | Various | Stormwater | Ongoing | -SCMs being selected at individual upland sites | -SCMs being implemented at individual upland sites<br>-Treatment at end of 3 OF basins in '95-'96<br>-Partial/complete diversion of stormwater to WWTP/POTW in 15 basins (work to be completed by 2011)<br>-Ongoing City-wide programmatic source control efforts (see Section 2.1) | -Iterative approach done on basin-by-basin basis.<br>-Objective of SCE is to identify up-pipe sources |
| 3 | Premier Edible Oil | 3.6E | Groundwater | Ongoing (to be determined) | -DEQ is requring a focused feasibility study (FFS) to be performed to support selection of SCM addressing NAPL and groundwater | | -Outstanding nature and extent issues (i.e., SCE) to be addressed in FFS |
| 4 | Schnitzer Burgard Industrial Park | 3.8E | Stormwater | Ongoing (TBD) | | | -SCE complicated by property ownership |
| | | | Overland Transport | Ongoing (TBD) | | | -SCE complicated by property ownership |
| 5 | Schnitzer Steel | 4.0E | Stormwater | Ongoing (4th Qtr '11) | -Stormwater capture, re-use, end-of-pipe treatment sytem installed in 2009 | | -Stormwater management system to be expanded |
| | | | Overland Transport | Ongoing (4th Qtr '11) | -Asphalt berm constructed in 2009 along 925' of landward edge of Schnitzer dock to help prevent overland runoff to slip | | |
| 6 | Kinder Morgan (former GATX) | 4.2W | Groundwater | Ongoing (1st Qtr '11) | -GW pump & treat system in-place<br>-SCE designed to enhance existing interim GW CSM<br>-FFS for barrier wall being prepared | | |
| 7 | BP/Arco | 4.8W | Groundwater | Complete | -Barrier wall & enhanced GW pump & treat system in-place<br>-Riverbank & nearshore sediment removal completed fall '08 | -RP started SCM in summer '07 Fish Window & completed work in fall '08 removing 16,000cy of contaminated soil/sediment. | |
| 8 | Exxon/Mobil | 5.1W | Groundwater | Complete | Complete | Complete | -SCM selected in 1997 DEQ ROD. Onging SCM.<br>-Further SCMs (enhancement) are being studied |
| 9 | MarCom South | 5.8E | Overland Transport | Currently reviewing revised SCE | | | -RP removed sand blast grit piles in fall '08 as part of "housekeeping" effort |
| 10 | Gasco | 6.4W | Groundwater | Complete | -SCM Eval report (FFS) submitted 10/07<br>-Draft interim Design Report submitted 11/09<br>-Currently in Formal Dispute Resolution regarding next step in SCMs | | -See Section 5.0 of text |
| | | | Bank erosion | Complete | -Coordinate with in-water Early Action | | In-water Early Action AOC with EPA signed 9/09 |
| 11 | Gasco (Siltronic) | 6.6W | Groundwater | -SCE received '09, preliminarily reviewed & deferred | -SCE FFS for Gasco considers this pathway | | -Gasco MGP waste on the Siltronic property |
| 12 | Siltronic | 6.5W | Groundwater | Complete | -SCM Eval report (FFS) submitted 10/07<br>-Enhanced in-site bioremediation (EIB) SCM applied fall '08.<br>-EIB supplemental work in '09 & '10 | -EIB also applied in source area<br>-SCM effectiveness monitoring ongoing | |
| 13 | Rhone Poulenc | 7.0W | Groundwater | Ongoing (4th Qtr '10) | -RP recently completed long-term pilot testing for potential pump & treat SCM. | | -Comprehensive SCE Report due October 2010 |
| 14 | Arkema | 7.2W | Groundwater | Complete | -Revised FFS for barrier wall & hydraulic received 2008.<br>-DEQ selected wall/extraction wall SCM in 200 | -Arkema submitted a draft design for the wall/wall SCM in 2010. DEQ provided comments.<br>-Well/wall SCM is in final design<br>-SCM scheduled to begin 2011 | -RP implemented series of pilot & full-scale SCMs |
| | | | Stormwater | Complete | -Stormwater SCM in design & permitting | -SCM construction scheduled to begin 2011. | |
| | | | Bank erosion | Complete | | | -To be integgrated into in-water Early Action |
| 15 | Willbridge | 7.7W | Groundwater | Complete (except for deep GW) | Complete | Complete | -Ongoing GW pump & treat SCMs<br>-Further SCM ehancements are being studied |
| 16 | Gunderson | 9.0W | Groundwater | Ongoing (1st Qtr '11) | | | -Ongoing GW pump & treat SCM in Area 1 |
| | | | Stormwater | Ongoing (2nd Qtr '11) | | | |
| | | | Bank erosion | Ongoing (1st Qtr '11) | | | |
| | | | Overland runoff | -TDB, pending DEQ review of RI Report | | | |

Notes: 1) Date in parentheses is expected date of completion
2) Source Control Evalaution (SCE)




## *Figure 1:* Status of Source Identification in City Stormwater Basins (August 2010)

Outfall basin status of source identification
- No Significant Sources in Basin and Insignificant or Incomplete Pathway
- Source Identification in Basin is Complete
- Additional Source Identification Needed or May be Needed in Basin

Base imagery 2009 from USDA NAIP photography.
Outfalls, outfall basins, and hydro boundary from City of Portland Bureau of Environmental Services.
Taxlots from Metro RLIS.

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RM-1
RM-2
RM-3
RM-4
Rivergate Industrial Park
Terminal 5
Port of Portland
Blue Lagoon - Marine Terminal 5
Consolidated Metco Inc.
Ro-mar Rlty of OR Inc.
Metco Inc.
South Rivergate Industrial Park
Evraz Oregon Steel Mills Inc.
Steelmill Warehouse LLC
JR Simplot Co.
P. O. P.
Ash Grove Cement Co.
TOC Holdings Inc.
Portland General Electric Co.
P.O.P. (leased)
St. Johns - Keeler #2 Right-Of-Way
Millican Properties LLC
Lampros Properties LLC
Schnitzer Invest. Corp.
RL R Invest, LLC
Northwest Pipe Co.
Smurfit-Stone Container
Schnitzer Steel Industries Inc.
P.O.P. (leased)
Terminal 4
Slip 1
Slip 3
International Terminals Slip
Walters Douglas J
Schnitzer Invest. Corp.
Babcock Land Co. LLC
RK Storage & Warehousing Inc.
Olympic Pipeline Company
Kinder Morgan Liquids Terminals LLC
Owens-Corning Fiberglas Corp.
Knife River Corporation
ACF Industries Inc.
Portland General Electric Co.
Linnton Oil Fire Training
Alder Creek Lumber Co. Inc.
Frevach Land Co.
ESCO Landfill - Sauvie Island

Upland (ECSI) Site
Basin Boundary
*Site/Vicinity Parcels
River Miles
Navigation Channel
River Edge + 13 ft NAVD

Outfalls
Outfall
Dock Drain
Roof Drain

Bridges
Docks and Structures
Waterfront Taxlots

Generalized Zoning
Commercial
Industrial
Multi Family
Mixed Use Employment
Mixed Use Residential
Parks & Open Spaces
Rural
Single Family

*Site/Vicinity Parcels:
Parcel ownership outlines on or in the vicinity of ECSI Sites or near the waterfront. Sites were labeled or outlined within the basin and within a mile of the river between river mile 2 and 11.

integral consulting inc.
LWG Lower Willamette Group

N

0 1,000 2,000 Feet

FEATURE SOURCES:
Transportation, Property, Zoning, or Boundaries: Metro RLIS.
Channel & River Miles: US Army Corps of Engineers.
Bathymetric Information: David Evans and Associates, Inc.
ECSI and Outfall Locations: City of Portland, 2008.

**DRAFT**
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This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part.

**Figure 2 - a**
Land Zoning and Ownership

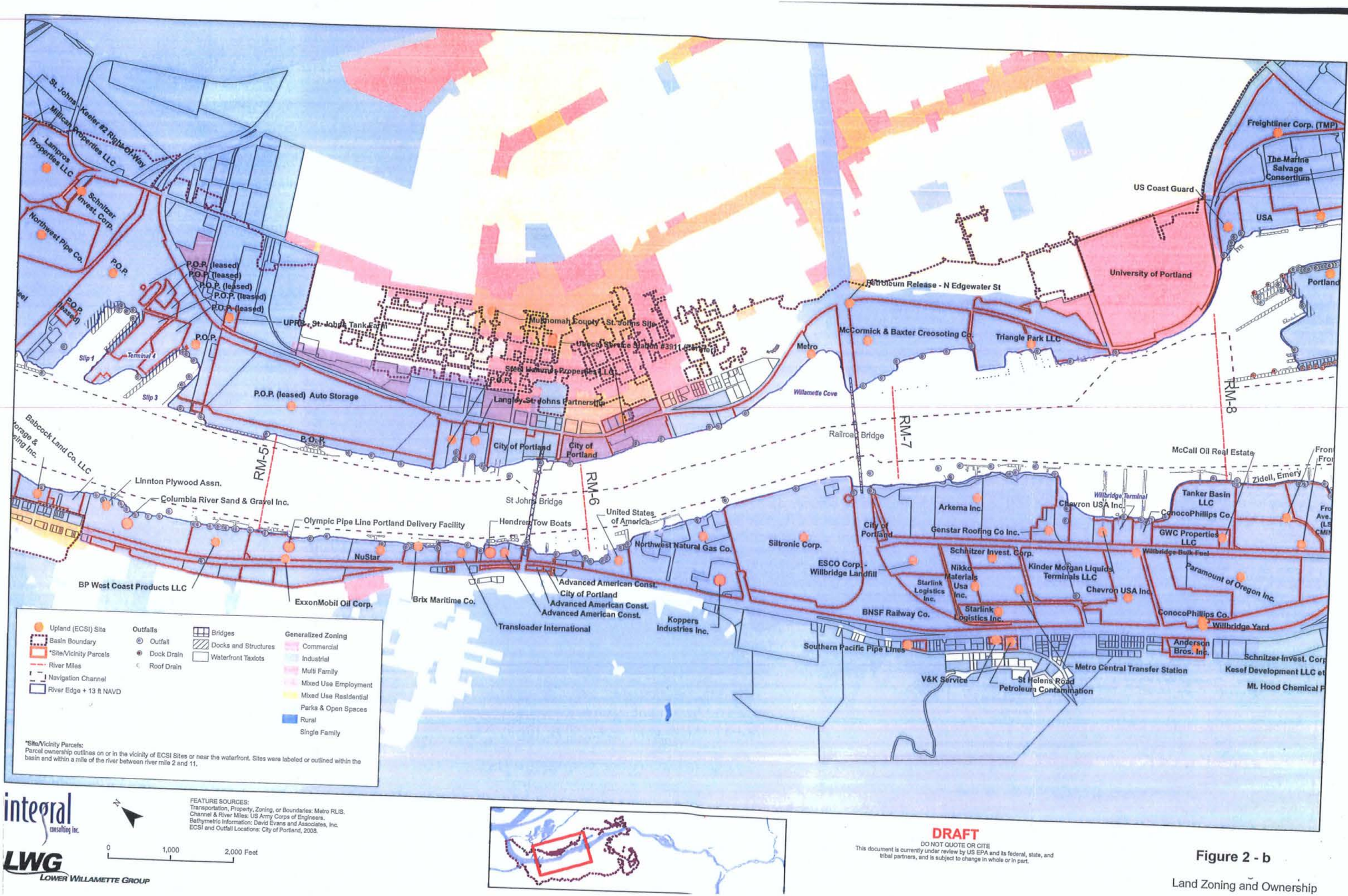


**Figure 2 - b**

Land Zoning and Ownership

Roadway Express
Mocks Bottom
Freightliner Corp. (TMP)
North Basin Watumull LLC
Basin ST. Assoc
Fred Meyer - Swan Island
Freightliner Corp.(PMP)
The Marine Salvage Consortium
ATC Leasing Co.
Becker Land LLC
Freightliner Corp.
City of Portland
US Coast Guard
P. O. P.
USA
Swan Island Lagoon
Freightliner Corp.
P.O.P.
Anchor Park LLC
Automatic Vending
P. O. P.
City of Portland
Ash Grove Cement Co.
University of Portland
Crosby & Overton
Portland Shipyard LLC
P.O.P. (leased)
Vigor Industrial LLC
P. O. P.
RM-8
RM-9
RM-10
RM-11
Nurnberg Scientific Co.
Mammal Survey & Control Service
Cascade Brake Products
Tarr Inc.
Industrial Battery Building
UPRR - Albina Yard
Oregon Washington Railroad & Navigation Co. (UPRR Albina Yard)
Valvoline
Master Chemical Inc.
Herman, Stan
Sakrete of Pacific NW
Vermiculite Northwest Inc. (Former)
Tucker Building
Union Pacific Railroad
Fremont Bridge
Union Station Agricultural Marketing Center Site
Willamette River Westside CSO Construction
Sulzer Pumps (US) Inc.
City of Portland
Apollo Dev. Inc.
Waterfront Pearl Condominiums Construction Site
Ralston, TR
Ralston, Tim
Union Station Horse Barn
Pearl Building
Hoyt St. Railyard (Former)
Beich Creek Cove
P. O. P.
Terminal 2
Dolan and Co. LLC
Sause Bros. Inc.
Williams, Cindy
Dasic International Corp.
Ralston, Tim
Riverscape LLC
Irvjoy 3rd Generation Corp.
Front Avenue MP
Zehrbog Corp. (Former)
Gender Machine Works, Inc.
Wilbur-Ellis Co.
RiverTec Property
Equilon Enterprises LLC
Gunderson LLC
Hercules Inc.
McCall Oil Real Estate
Front Ave. LP (LSD Glacier NW)
Front Ave. LP (LSD Tube Forgings)
Zidell, Emery
Shaver Transportation Co.
Gunderson LLC
Portland Terminal Railroad Co. (B.N.S.F. Lake Yard)
Longview City Laundry & Cleaners
Guilds Lake
Willbridge Terminal
Chevron USA Inc.
Tanker Basin LLC
ConocoPhillips Co.
Front Ave. LP (LSD CMINW)
Lakeside Industries
Texaco Product Pipeline
Nudelman & Son Inc.
GWC Properties LLC
Gundersen LLC
Zidell, Emery
Chapel Steel
Wirfs Don
Mogul Corp.
General Electric Co.
Willbridge Bulk Fuel
Dura Industries
Container Recovery
Owens-Corning Fiberglas Corp.
Hill Investment Co.
Mt. Hood Chemical Corp.
Paramount of Oregon Inc.
Cornerstone Property
Mogul Corp.
Paco Pumps
Galvanizers Co.
Chevron USA Inc.
Van Waters & Rogers Inc.
ANRFS Holdings Inc.
Carson Oil - NW 35th AVE
ConocoPhillips Co.
Willbridge Yard
Equilon Enterprises LLC
Wilhelm Trucking
Lakea Corp.
Container Management Services
Anderson Bros. Inc.
HAJ Inc.
Schnitzer Invest. Corp.
Kesef Development LLC et al.
Brazil & Co.
Armstrong Disposal Company
Magnus Co.
Metro Central Transfer Station
Mt. Hood Chemical Property
PGE - Forest Park Property

Upland (ECSI) Site
Basin Boundary
*Site/Vicinity Parcels
River Miles
Navigation Channel
River Edge + 13 ft NAVD

Outfalls
Outfall
Dock Drain
Roof Drain

Bridges
Docks and Structures
Waterfront Taxlots

Generalized Zoning
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Industrial
Multi Family
Mixed Use Employment
Mixed Use Residential
Parks & Open Spaces
Rural
Single Family

*Site/Vicinity Parcels:
Parcel ownership outlines on or in the vicinity of ECSI Sites or near the waterfront. Sites were labeled or outlined within the basin and within a mile of the river between river mile 2 and 11.

integral consulting inc.

LWG
LOWER WILLAMETTE GROUP

N

0 1,000 2,000 Feet

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**Figure 2 - c**
Land Zoning and Ownership

# Update on Stormwater Source Control at the Portland Harbor Superfund Site

## September 2010

Prepared by the Oregon Department of Environmental Quality


State of Oregon
**Department of Environmental Quality**

This document is posted on DEQ's web page at
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

If you have questions or comments regarding the information in this report, please direct them to Karen Tarnow, Portland Harbor Stormwater Coordinator at DEQ (503-229-5988).
tarnow.karen.e@deq.state.or.us

## 1.0 Introduction

DEQ is responsible for controlling upland sources of contamination to Portland Harbor on a schedule that ensures cleanup of the river can proceed with minimal risk of recontamination. This document describes DEQ's strategy for achieving this objective for the stormwater pathway, the status of stormwater source control at upland sites and the timeline for completing this work. In addition, Attachment A describes a tool DEQ developed for evaluating stormwater data.

### 1.1 Potential Sources of Stormwater Contaminants

There are two types of contaminant sources at upland sites. One type of source is contaminated media (e.g., soil, groundwater, pavement, etc.) that results from historical releases of hazardous substances. This is sometimes called *legacy contamination*. Legacy contamination can be caused by legacy *contaminants* that have been banned for general use, such as PCBs and DDT, but can also be caused by contaminants currently in use, such as various metals and petroleum-related substances. We use the term "legacy" because most often this contamination resulted from past practices and/or releases.

The other type of contaminant source is a result of the day-to-day activities that take place at a site. Many kinds of activities have the potential to result in minor releases of contaminants, such as zinc released by the wear and tear on tires and brake pads, phthalates off-gassing from paints and PVC piping, and petroleum products in drips of oils, greases and fuels used for vehicles and machinery.

Effective stormwater source control is based upon an understanding of the types and sources of contamination at a site. This information is used to determine the appropriate tools to prevent or minimize the potential for contaminants to become entrained in stormwater runoff.

### 1.2 Preventing Stormwater Contamination

There are many programs and efforts underway that are designed to eliminate or control contaminant sources and minimize the potential for stormwater to come into contact with contaminants. These include stormwater permits and implementation of best management practices (BMPs), hazardous waste regulations, toxics use reduction initiatives, the City of Portland's Stormwater Management Manual and Green Streets initiatives, etc. These programs do the lion's share of the work of preventing stormwater contamination, and have been widely practiced for years and even decades in some instances. As a result, present-day stormwater discharges are *much* cleaner than in years past.

That said, there are certain sites where a higher level of investigation, regulation and oversight may be needed to achieve source control objectives. This is the focus of DEQ's comprehensive stormwater strategy for Portland Harbor.

## 2.0 DEQ's Comprehensive Stormwater Strategy for Portland Harbor

DEQ's objectives for stormwater source control are (1) to identify and address stormwater discharges containing elevated contaminant concentrations, and (2) to ensure future stormwater discharges will not recontaminate harbor sediments. DEQ draws upon its Cleanup and Water Quality authorities to accomplish these objectives. This is how they are being applied:

### 2.1 Identify and address contaminated stormwater discharges[1]

DEQ's Cleanup Program identifies and addresses sites with contaminated stormwater discharges to minimize the potential for contaminants to migrate to the river via the stormwater pathway. This approach involves consideration of several lines of evidence to determine where source control is needed and when it has been achieved. These procedures are described in DEQ's *Guidance for Evaluating the Stormwater Pathway at Upland Sites* (http://www.deq.state.or.us/lq/cu/stmwtrguidance.htm).

The guidance is currently being updated to clarify certain policies and procedures and to include a screening tool for stormwater data (see Attachment 1 for a description of the tool). The screening tool is used to help distinguish stormwater containing elevated contaminant concentrations from stormwater that represents "typical" industrial runoff. Elevated contaminant concentrations are an indication that contamination may be present at the site and that additional investigation and source control may be needed.

DEQ will issue a Stormwater Source Control Decision (SCD) when it determines that contaminant sources at the site have been controlled as necessary to minimize potential for contaminant migration to the river via stormwater discharge, and that the resulting discharge is not likely to contaminate in-river sediments.

Stormwater is a unique contaminant pathway for the Cleanup Program to address because releases of certain types of contaminants are *expected* to continue, at some level, due to the nature of industrial operations and other human activities. Whereas the Cleanup Program typically focuses on contaminated media (e.g., soil, sediment, groundwater), these ongoing, incidental releases are commonly managed through Water Quality programs and permits to ensure that stormwater discharges don't result in unacceptable environmental impacts.

For this reason, a Stormwater SCD from DEQ's Cleanup Program does not confer the same degree of finality as a SCD for other contaminant pathways (e.g., groundwater, bank erosion) or a No Further Action (NFA) determination. There is an expectation that appropriate stormwater management measures will continue to be implemented and that water quality regulations and programs will be applied as necessary to ensure adequate measures are being taken to achieve

[1] Some industrial sites operate under a stormwater permit that requires certain stormwater control measures. However, these permits do not address all of the contaminants that are most problematic in Portland Harbor and may not be sufficient to address the Portland Harbor cleanup goals. Therefore, a stormwater permit does not necessarily preclude the need for additional evaluation and source control.

environmental objectives. Thus, a Stormwater SCD from the Cleanup Program should be considered a milestone in the stormwater source control process rather than an endpoint.

### 2.2 Manage future stormwater discharges with Water Quality programs and permits

As mentioned above, there is a wide array of regulatory and non-regulatory programs that directly or indirectly help to minimize the potential for stormwater to come into contact with contaminants. Before cleanup of the river can proceed, there needs to be a high degree of confidence that these efforts, in total, sufficiently minimize the potential for stormwater discharges to recontaminate the harbor sediments. This requires an understanding of the load of contaminants being discharged into the river in spite of all the source control and stormwater management efforts, and the fate and transport of contaminants in the river.
This evaluation will depend in part on modeling and other analyses being conducted as part of the Portland Harbor Remedial Investigation/Feasibility Study (e.g., loading evaluation, modeling results, cleanup goals). Much of this information should be available, at least in draft form, by spring 2011. DEQ is also looking into simple recontamination models to complement these efforts.

If the evaluation determines that stormwater poses a recontamination risk, one or more of the following things may happen.

a) DEQ could revisit certain SCDs and/or expand its source control evaluation efforts to include additional sites (i.e., those currently considered to be lower priority sites) with the goal of "ratcheting back" on the contaminant load being discharged into the river.
b) DEQ could issue a more stringent industrial stormwater general permit[2], require additional facilities to obtain coverage under the general permit, and/or issue individual stormwater permits to facilities where a more protective permit is necessary to prevent recontamination.
c) The City could improve or expand its stormwater pollution prevention efforts to better address the sources or drivers of recontamination risk.

The results of the evaluation will help DEQ determine which of these actions – or potentially other actions not listed above – are the most appropriate measures to take to minimize the recontamination risk. If additional actions are needed, the objective would be to have them implemented before or shortly after EPA issues the Record of Decision for Portland Harbor. After the Portland Harbor Record of Decision (ROD) is issued and Remedial Design begins, stormwater discharges within or adjacent to Sediment Management Areas may undergo additional scrutiny. If existing controls are found to be inadequate to prevent recontamination,

[2] Certain industry types are required to obtain an Industrial Stormwater General Permit from DEQ (aka the 1200Z permit, administered in Portland by the City's Bureau of Environmental Services). The permit creates a mechanism for providing ongoing oversight of stormwater management practices and evaluating the effectiveness of these practices. If the discharge cannot be adequately controlled by the 1200Z general permit, DEQ can require a facility to obtain a customized "individual" stormwater permit. Information on these permits and the industries required to obtain a permit can be found here: http://www.deq.state.or.us/wq/stormwater/industrial.htm DEQ's Water Quality Program is in the process of revising the 1200Z and expects to propose a revised permit in summer 2011. Once this permit is drafted, DEQ can begin to evaluate its effectiveness for Portland Harbor.

site-specific stormwater treatment technologies and/or customized stormwater permits may be required at sites of concern.

## 3.0 Timeline for Accomplishing Stormwater Source Control Objectives

Figure 1 shows an approximate timeline for DEQ to accomplish its source control objectives. With the possible exception of a small number of complex sites, DEQ expects to have stormwater source control completed by the time that EPA issues the Portland Harbor ROD.

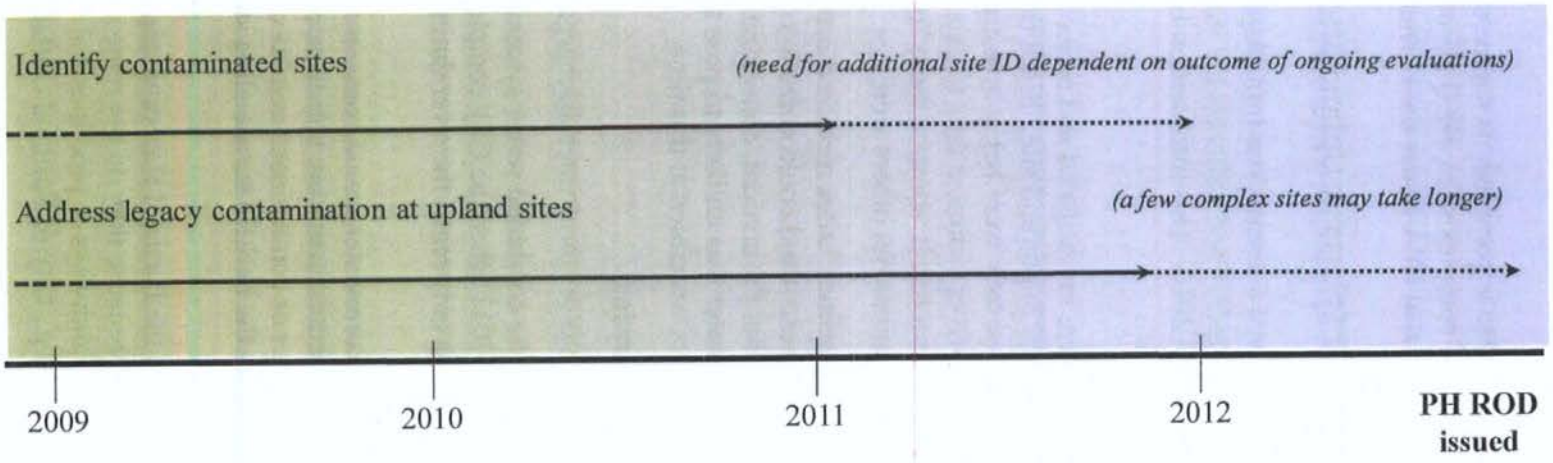
## 4.0 Status of Stormwater Source Control Efforts at Upland Sites

Table 1 lists all of the sites in DEQ's Environmental Cleanup Site Information (ECSI) database located within the Portland Harbor watershed boundary and indicates the status of stormwater source control efforts at each site as of September 2010. This information is also presented in Figure 2. A few notes regarding this status report:

- A number of ECSI sites shown on the map were investigated and remediated prior to the initiation of work on the Portland Harbor Superfund site. Since these sites did not undergo a stormwater evaluation at the time they were being investigated, DEQ reviewed the file information and adjacent in-river sediment data to determine whether additional evaluation was needed. As a result, some of these "closed" sites were asked to undertake source control evaluations but others were not.
- "Lower Priority – Need for SCE To Be Determined" sites include those where there is evidence to suspect that contamination is present and could come into contact with stormwater or stormwater conveyances, but the amount, concentration and/or potential for contaminant migration in stormwater was unlikely to pose a significant threat and therefore additional evaluation is not warranted at this time.
- "Insignificant Pathway" sites include the following:
    - sites that have no or very infrequent, minor stormwater discharges
    - sites where stormwater discharges to the combined sewer system (or *will* discharge to the system by the end of 2011 when the City completes its reengineering of the system) and could only reach the river during an overflow event
    - sites where there is no evidence that stormwater would come into contact with contamination on the site (e.g., contaminants are subsurface and there is no potential for exposure to stormwater or contaminant migration to the river via infiltration into or advection along the backfill surrounding stormwater pipes)
- A small number of ECSI sites that fall within the Portland Harbor watershed boundary have not been depicted on the map because they do not represent true "sites." Examples include a few spills along highways or pipelines and ECSI sites that represent Study Areas rather than sites (e.g., City of Portland Outfalls; Portland Harbor Sediments).

**Figure 1: Timeline for achieving stormwater source control in Portland Harbor.**

**Controlling sources:**




**Managing future discharges:**

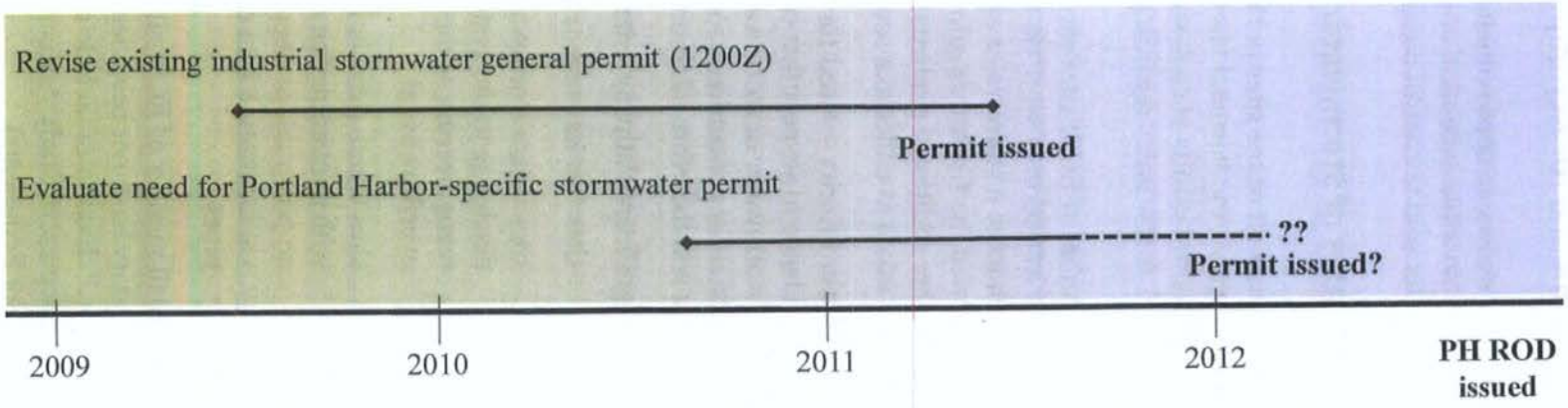


**Table 1: Status of Stormwater Source Control Evaluations at ECSI Sites**

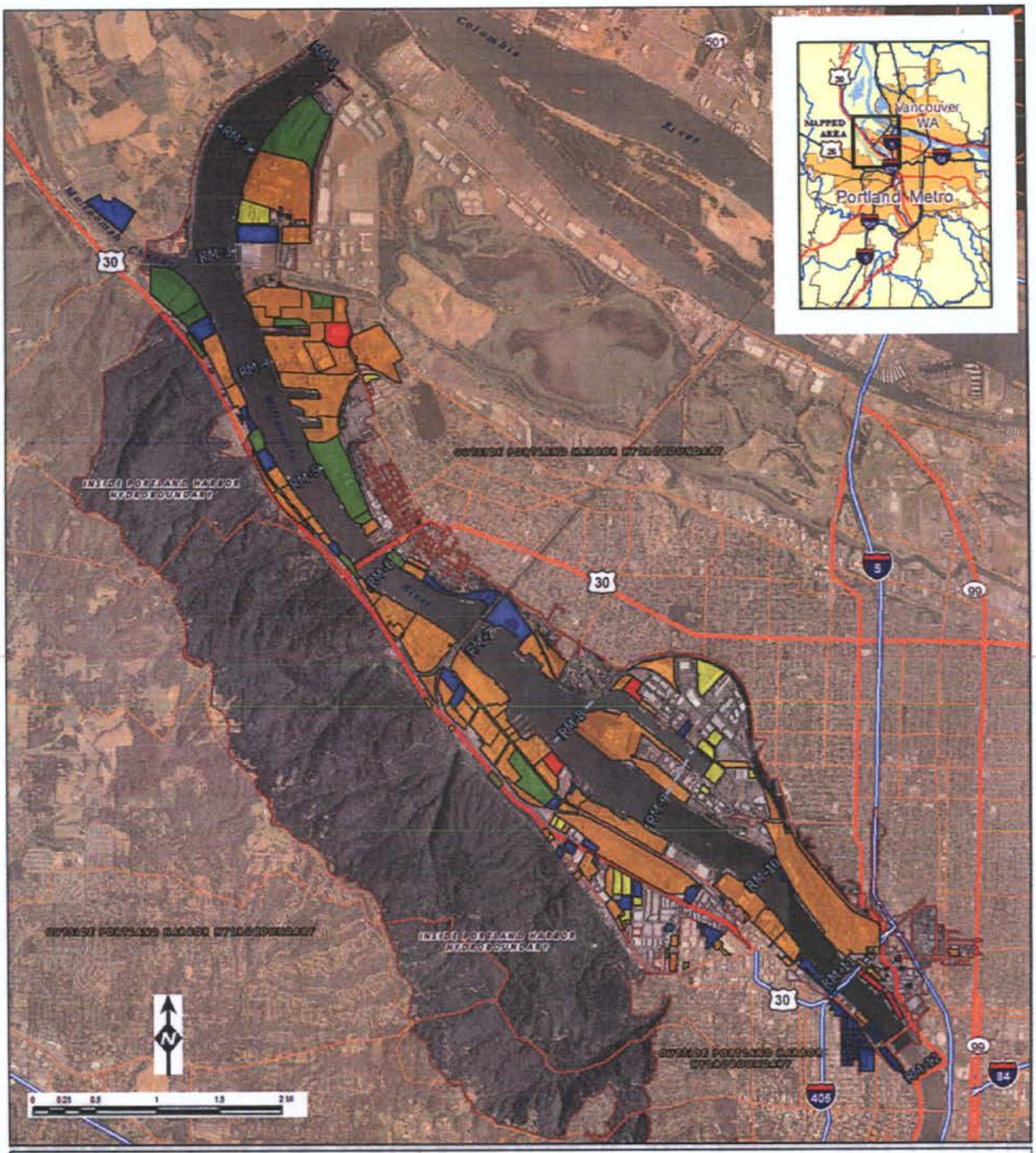
| Stormwater SCE Needed (6) | ECSI # |
|---|---|
| Cargill (Albina River Lots) | 9997 |
| Glacier (Albina River Lots) | 9998 |
| Glacier NW [Front St.] | 2378 |
| Lampros Steel | 2441 |
| Ross Island (Albina River Lots) | 9999 |
| US Navy And Marine Reserve Center | 5109 |
| **Stormwater SCE Underway (59)** | |
| Air Liquide/Schnitzer Investment - Doane Lake | 395 |
| Arkema | 398 |
| Boydstun Metal Works Inc | 2362 |
| Brix/Foss Maritime | 2364 |
| Burlington Northern Hub Center And Lake Yard | 100 |
| Calbag Metals - Nicolai | 5059 |
| Calbag Metals [Front St.] | 2454 |
| Centennial Mills | 5136 |
| Chevron Products Company | 25 |
| Chevron U.S.A., Inc. | 1549 |
| Christenson Oil | 2426 |
| Columbia American Plating | 29 |
| Conoco Phillips Tank Farm | 177 |
| Consolidated Metco, Inc. | 3295 |
| Container Management Services LLC | 4784 |
| Crawford Street | 2363 |
| ExxonMobile Oil Corporation | 137 |
| Fred Devine Diving & Salvage Inc | 2365 |
| Freightliner, LLC | 115 |
| Freightliner, LLC | 2366 |
| Galvanizers Company | 1196 |
| General Electric Ser Shop | 4003 |
| GS Roofing Products, Inc. | 117 |
| Gunderson Inc. | 1155 |
| Kinder Morgan Liquid Terminals LLC | 1096 |
| Koppers Industries, Inc. | 2348 |
| Lakeside Industries | 2372 |
| McCall Oil | 134 |
| Metro Central Transfer Station | 1398 |
| Mt. Hood Chemical Corporation | 81 |
| Northwest Natural Gas Company | 84 |

| | | |
|---|---|---|
| | Northwest Pipe Company | 138 |
| | Oregon Steel Mills - Rivergate | 141 |
| | Owens Corning - Linnton | 1036 |
| | PacifiCorp Albina Riverlots | 5117 |
| | Port of Portland - Terminal 1 North | 3377 |
| | Port of Portland - Terminal 2 | 2769 |
| | Port of Portland - Terminal 4 | 272 |
| | Port of Portland - Terminal 4, Slip 1 | 2356 |
| | Portland Ship Yard [Cascade General And Port Properties] | 271 |
| | Premier Edible Oils | 2013 |
| | Rhone Poulenc | 155 |
| | Schnitzer Steel | 2355 |
| | Schnitzer Burgard Industrial Park | 5324 |
| | Shell Oil Co. - Willbridge Plant | 160 |
| | Shore Terminals LLC | 1989 |
| | Siltronic [Wacker Siltronic Corporation] | 183 |
| | Sulzer Pumps | 1235 |
| | Texaco Portland Terminal | 169 |
| | Time Oil | 170 |
| | Triangle Park - North Portland Yard | 277 |
| | Tube Forgings of America, Inc. | 1239 |
| | Union Carbide Corp. [NW Container] | 176 |
| | Univar [Van Waters and Rogers] | 330 |
| | UPRR Albina Site | 178 |
| | US Moorings [US Army COE] | 1641 |
| | USCG Dock | 1338 |
| | Wilhelm Trucking [Magnus] | 69 |
| | Willbridge Yard | 3395 |
| **Stormwater SCE Complete; Source Control Decision Pending (3)** | | |
| | Arco Bulk Terminal | 1528 |
| | Mar Com, Inc. - South Parcel | 2350 |
| | PGE - Forest Park Property | 2406 |
| **Stormwater Source Control Decision Issued (16)** | | |
| | ACF Industries | 794 |
| | Anderson Bros. Property | 970 |
| | BES Water Pollution Control Facility | 2452 |
| | Blue Lagoon - Marine Terminal 5 | 1686 |
| | Chevron Asphalt | 1281 |
| | Jefferson Smurfit Corporation | 2371 |
| | Linnton Plywood Association | 2373 |
| | Mar Com, Inc. - North Parcel | 4797 |

| | | |
|---|---|---|
| | Marine Finance Co. | 2352 |
| | Oil Fire Training Ground | 1189 |
| | Paco Pumps | 146 |
| | PGE - Harborton Substation | 2353 |
| | Port of Portland - Terminal 4 Auto Storage | 172 |
| | Ro-Mar Transportation Systems Inc | 2437 |
| | SFI, Inc. | 5103 |
| | UPRR – St. Johns Tank Farm | 2017 |
| **Lower Priority - Need for Stormwater SCE TBD (18)** | | |
| | Ashland Chemical Inc | 1076 |
| | Borden Chemical, Inc. | 1277 |
| | Brazil & Co. | 1026 |
| | Carson Oil Co., Inc. | 1405 |
| | Color Magic Inc | 1328 |
| | Container Recovery, Inc. | 4015 |
| | Dura Industries Inc | 111 |
| | End of Swan Island Lagoon | 3901 |
| | Estey Corporation | 1430 |
| | Federal Express | 3807 |
| | Fred Meyer - Swan Island | 44 |
| | GI Trucking | 1840 |
| | Jinkz Corp | 2423 |
| | JR Simplot | 3343 |
| | Office Depot | 260 |
| | Portland Container Repair Corporation | 2375 |
| | Santa Fe Pacific Pipelines | 2104 |
| | Trumball Asphalt [Owens Corning Yeon] | 1160 |
| **Insignificant Pathway - Minimal stormwater runoff (8)** | | |
| | Ash Grove Cement - Rivergate Plant | 4696 |
| | Goldendale Aluminum Company | 2440 |
| | GPC Linnton | 333 |
| | Hercules Incorporated | 988 |
| | Nudelman & Son Inc. | 966 |
| | Port of Portland Tract O Property | 5307 |
| | Union Station - Track #5 | 1414 |
| | Willamette Cove | 2066 |
| **Insignificant Pathway - Stormwater captured/to be captured by combined/sanitary system (4)** | | |
| | Babcock Land Company | 2361 |
| | Cascade Brake Products | 1019 |
| | RK Storage And Warehousing | 2376 |
| | Unocal SS 3911 | 1593 |

| | |
|---|---|
| **Insignificant Pathway - Redeveloped under COP stormwater manual (5)** | |
| ANFRS Holdings/ABF Freight Systems | 1820 |
| Greenway Recycling | 4655 |
| Penske Truck Leasing | 5055 |
| Waterfront Pearl Cond. Construction Site | 4535 |
| Westinghouse | 4497 |
| **Insignificant Pathway - No evidence of contaminated stormwater (20)** | |
| Albers Mill Property | 4590 |
| Chapel Steel Inc | 4920 |
| Dasic International Corp. | 110 |
| Eastman Chemical Company | 135 |
| ESCO Corp. - Willbridge Landfill | 397 |
| Front Avenue Mp | 4008 |
| Glacier Northwest Inc. Linnton | 2351 |
| Gould, Inc | 49 |
| Hoyt St. Railyard (Former) | 1080 |
| Industrial Battery Building | 935 |
| Kittridge Distribution Center | 2442 |
| Master Chemical Inc. | 1302 |
| Mogul Corp. | 1307 |
| Pearl Building | 4960 |
| Port of Portland - Terminal 1 South | 2642 |
| Schnitzer Investment - Near NW 35th And Yeon | 2424 |
| Shaver Transportation Co | 2377 |
| Transloader International Company, L.L.C. | 2367 |
| Tucker Building | 3036 |
| Valvoline Inc | 3215 |
| **No pathway for site COIs (e.g., groundwater site; capped sites) (16)** | |
| ESCO Landfill – Sauvie Island | 4409 |
| Guilds Lake - NW Industrial St. | 404 |
| Hoyt St Train Yard - Parcel 1 | 1624 |
| King-Ries Property | 4560 |
| Longview City Laundry & Cleaners Inc | 1395 |
| Lynden Farms | 4461 |
| McCormick & Baxter Creosoting Co. | 74 |
| Morse Bros. | 2370 |
| ODA Laboratory Services | 1962 |
| PGE - Substation E | 3976 |
| St. Johns - Keeler #2 Right-of-Way | 1067 |
| Tarr Inc | 1139 |

| | | |
|---|---|---|
| | Union Station - Parcel B South | 1885 |
| | Union Station Horse Barn | 2407 |
| | USPS - Fleet Operations | 2183 |
| | WR Grace Co. | 2761 |
| **Not a true site - Not shown on map (12)** | | |
| | City of Portland Outfalls | 2425 |
| | Crosby & Overton | 877 |
| | Diesel Release - N Edgewater | 1345 |
| | Doane Lake Study Area | 36 |
| | Forest Park Drainage Tunnel, Former | 3301 |
| | Mocks Bottom | 1306 |
| | Portland Delivery Facility | 3342 |
| | Portland Harbor Sediments | 2068 |
| | South Rivergate Industrial Park | 2980 |
| | St Helens Road Petroleum Contamination | 2630 |
| | Texaco Product Pipeline | 2117 |
| | Union Chemical | 329 |
| **Outside Portland Harbor Watershed - Not shown on map (8)** | | |
| | Alder Creek Lumber Co., Inc. | 2446 |
| | Flint Inc. | 1753 |
| | Graphic Arts Center | 187 |
| | Harsh Investments | 878 |
| | Klix Corp of Oregon | 1075 |
| | Multnomah County - St. Johns Site | 2421 |
| | ODEQ Clean Up Sylvan Cleaners Site | 1897 |
| | Zehrung | 187 |




## *Figure 2:* Status of Stormwater Source Control at Portland Harbor ECSI Sites (August 2010)

Source Control Evaluation Needed
Source Control Evaluation Underway or Complete, Source Control Decision Pending
Source Control Decision Issued
Lower Priority - Need for Source Control Evaluation to be Determined
Insignificant Pathway

Base imagery 2008 from USDA NAIP photography.
Outfalls, outfall basins, and hydro-boundary from City of Portland Bureau of Environmental Services.
Taxlots from Metro RLIS.

DEQ
State of Oregon Department of Environmental Quality

A more detailed version of this map, showing ECSI site numbers and outfall locations, will be available on DEQ's website at http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

## Attachment 1: Evaluating Stormwater Data

DEQ developed a series of charts to assist with the evaluation of stormwater data. The charts were created using contaminant concentration data from stormwater samples collected at Portland Harbor-area industrial sites. They are intended to be used as a screening tool for distinguishing "typical" industrial stormwater from stormwater containing potentially elevated contaminant concentrations. The charts will be presented in Appendix E of DEQ's *Guidance for Evaluating the Stormwater Pathway and Upland Sites* and will be available on DEQ's website in October 2010 at: http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/stormwater.htm.

### 1.0 Basis for Using the Charts as a Screening Tool

The use of these charts as a screening tool is based on the premise that many kinds of industrial materials and activities have the potential to result in minor releases of contaminants, such as petroleum products in drips of oils, greases and fuels used for vehicles and machinery, phthalates off-gassing from paints and PVC piping, and zinc from galvanized building materials. Off-site sources, including highway traffic, operations at neighboring sites and atmospheric deposition, can also contribute to the contaminant load in stormwater runoff from a site.

As a result, industrial stormwater is likely to contain a somewhat predictable list of contaminants within a predictable concentration range even when good stormwater management practices are being implemented. If contaminant concentrations exceed these ranges, DEQ considers this to be a potential indicator of an uncontrolled source of contaminants at the site.

Some might question this rationale because all of the data used to create the charts were collected at contaminated or suspect sites and therefore would be expected to be more contaminated than typical industrial stormwater. DEQ considered this issue but considers it to be immaterial for two reasons. First, contaminated sites are likely to be contaminated by a few site-specific chemicals, and therefore stormwater would only show elevated concentrations of those specific contaminants and only if they were exposed to stormwater. All of the other contaminants would be expected to be present in stormwater at "typical" concentrations.

Second, as a screening tool, the charts are simply intended to identify sites that "stand out from the crowd." This information helps DEQ determine the need for additional evaluation or source control at a site. Since the charts are not used for directly evaluating potential waterbody impacts from the stormwater, the upper and lower bounds of the "typical" concentration range are not particularly relevant.

Due to the highly variable nature of stormwater, interpretations made using these charts should only be considered in the context of other lines of evidence and should not be presumed to provide conclusive evidence of the presence or absence of contamination at a site.

### 2.0 Chart Development

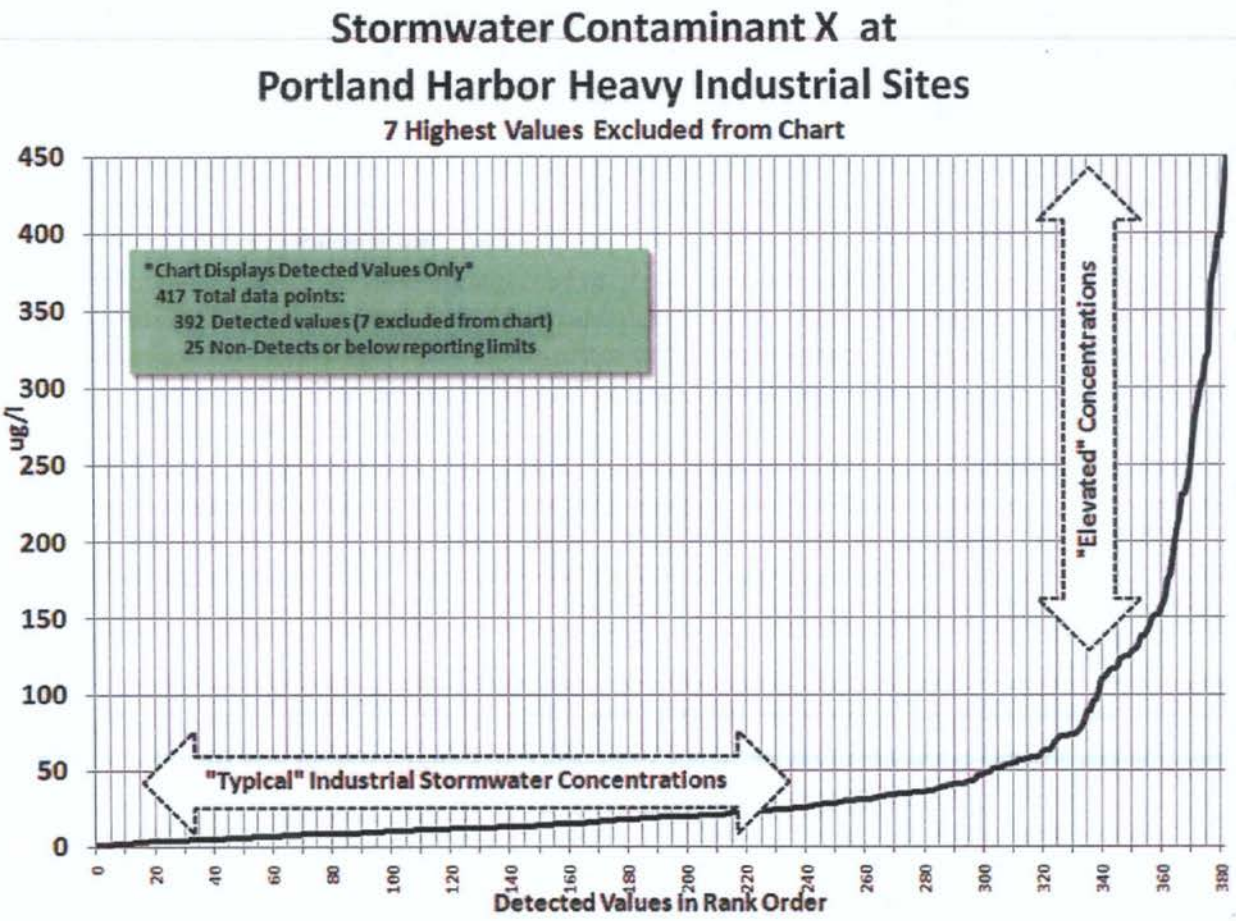
The charts were created using stormwater data from industrial sites in the Portland Harbor area of the Willamette River (River Mile 1.9 – 11.8). The largest single dataset was developed by the

Lower Willamette Group (LWG) in the course of their Round 3 sampling events for the Portland Harbor Remedial Investigation. This dataset includes stormwater data collected at 21 heavy industrial locations during 2007 and 2008. The rest of the data was submitted to DEQ by ECSI sites.

The charts present the stormwater data but do not specify the sample locations or methods. This information is only available in the original data reports. In almost all instances, stormwater samples were collected under a DEQ- or EPA-approved workplan. Both grab sample and composite sample data are included in the charts.

To create the charts, all of the detected values for a given contaminant were compiled and organized in rank order (i.e., lowest to highest concentration; charts include J-flagged/estimated values). The data were then plotted on a chart. The chart's X axis is the rank of each data point and the Y axis is the concentration. Information on the number of non-detected values for each contaminant is also provided on the chart.

An example of a typical chart for a stormwater contaminant is provided below. In most charts there is a definitive "knee" in the curve and the majority of data points fall within the relatively flat portion of the curve below the knee.



## 3.0 Screening Stormwater Data Using the Charts

The use of these charts as a screening tool is based on the assumption that the lower, flatter portion of the curve represents the contaminant concentration range that is typical of stormwater from Portland Harbor industrial sites. Consequently, when one or more contaminants are present at significantly higher concentrations (i.e., "elevated" concentrations represented by the steeper portion of the curve) it is an indicator that additional investigation and/or source control may be needed.

To evaluate stormwater data from a specific site, determine where the contaminant concentrations fall along the curve on the relevant chart.

- Concentrations falling within the **lower/flatter portion of the curve** suggest that stormwater discharges are not being unusually impacted by contaminants at the site and are therefore representative of "typical" industrial stormwater for Portland Harbor sites. However, this interpretation should not be considered to be a conclusive line of evidence. A determination that no additional source control or evaluation is necessary should be corroborated by other lines of evidence.

- Concentrations falling within the **upper/steeper portion of the curve** are an indication that uncontrolled contaminant sources may be present at the site and additional evaluation and/or source control measures may be warranted. The objective would be to determine the source(s) of the elevated concentrations and, based upon that, whether and what types of source control measures are needed.

## 4.0 Interpreting the Results

The screening results need to be evaluated based upon the characteristics of the site. Some sites can be expected to have higher concentrations of certain types of contaminants simply as a result of the type of operations (e.g., phthalates associated with painting activities, PAHs associated with heavy equipment and fueling). Slightly higher concentrations of specific contaminants might be considered to be "normal" at these sites but indicate potential contamination at others.

However, "normal" is not the same as acceptable. As stated above, these charts are used for identifying potentially contaminated sites and helping to guide source control evaluations. They are not designed to be used for evaluating the potential waterbody impacts of stormwater discharges.

An additional consideration when evaluating stormwater data is whether the data are likely to be representative of typical stormwater discharges from the site. Stormwater samples taken from the same location can show widely varying concentrations depending on the duration and intensity of the storm events that were sampled, whether the sample was collected early or late in the storm, the length of the dry period preceding the storms, and the activities occurring at the site since the previous storm event. This should be considered when determining how much weight to apply to stormwater data in the course of a stormwater evaluation and/or whether additional data is needed to support a decision.

# Milestone Report

## for Upland Source Control at the Portland Harbor Superfund Site

September 2010

Prepared by the Oregon Department of Environmental Quality


State of Oregon
**Department of Environmental Quality**

This document is posted on DEQ's web page at
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

# Table of Contents



## Attachments

# 1.0 Introduction

On December 1, 2000, a section of the lower Willamette River within the City of Portland, the Portland Harbor, was added to the Superfund National Priority List (NPL). In February 2001, the Oregon Department of Environmental Quality (DEQ), United States Environmental Protection Agency (EPA), and other governmental parties[1] signed a Memorandum of Understanding (MOU) that provided a framework for cooperation in the investigation and cleanup of the Portland Harbor Superfund Site to optimize federal, state, tribal and trustee expertise and available resources.

Under the 2001 MOU, EPA was designated as the Lead Agency for investigating and cleaning up "in-water" contamination in the Harbor, i.e., contamination in the river water and underlying sediment using federal Superfund authorities. DEQ, using state cleanup authority, was designated as the Lead Agency for identifying and controlling "upland" sources of contamination, i.e., those sources of pollution adjacent to or near the river that may be contaminating river water or sediments. To coordinate in-water cleanup and upland source control work, the MOU directed DEQ and EPA to jointly develop a source control strategy that defines a process for identifying and controlling potential sources of contamination threatening the river.

DEQ and EPA finalized the Portland Harbor Joint Source Control Strategy (JSCS) in December 2005[2]. The overarching goal of the JSCS is to identify, evaluate and control sources of contamination that may affect the Willamette River in coordination with the objectives and schedule for the Portland Harbor remedial investigation and feasibility study (RI/FS). Upland source control is necessary to allow cleanup of the river to proceed without risk of significant recontamination. DEQ is currently implementing the JSCS in the Portland Harbor Superfund Site study area – approximately River Mile (RM) 1.9 to River Mile 11.8[3].

The JSCS requires DEQ to prepare a Milestone Report on a quarterly basis that summarizes the status of DEQ's upland source control work. The report submittal schedule has been changed to bi-yearly. This is the ninth Milestone Report. Milestone Reports are submitted to EPA, and provide the basis for potential meetings with EPA and our government partners to discuss site prioritization and source control progress. These reports also serve as documentation of progress on river-wide source control within Portland Harbor.

## 1.1 Organization of the Milestone Report

The Milestone Report is organized as follows.

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[1] The signatory partners to the MOU include the EPA, DEQ, Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of the Grand Ronde Community of Oregon, Confederated Tribes of Siletz Indians, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Nez Perce Tribe, National Oceanic and Atmospheric Administration, Oregon Department of Fish and Wildlife, and U.S. Department of the Interior.

[2] The JSCS is available on DEQ's web site at http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

[3] "River Mile" indicates the distance from the Willamette River's confluence with the Columbia River (i.e., River Mile 11.8 is 11.8 miles upstream of the confluence).

- Section 2.0: Identifying Potential Sources of Contamination in Portland Harbor – This section describes DEQ's work to identify potential sources of contamination to the Willamette River in Portland Harbor, including site discovery and site assessment activities.
- Section 3.0: Evaluating Potential Sources of Contamination to the River – This section describes DEQ's status and schedule for the evaluation of all confirmed or suspected upland sources of contamination to Portland Harbor, as summarized in Table 1.
- Section 4.0: Taking Measures to Control Sources and Making Source Control Decisions – This section describes the source control measures used at upland sites in Portland Harbor and the process for making source control decisions, including coordination with EPA and our government partners, and public involvement opportunities. Source control measures and decisions are summarized in Table 1.
- Section 5.0: Status of Ongoing and Completed Source Control Activities – This section describes the information presented in Table 1 that summarizes the status of ongoing and completed source control measures. This section also describes the specific status of the 16 High Priority and Preliminary High Priority sites (Table 2). This section also presents five specific source control goals designed to help DEQ focus our efforts to achieve the overarching goal of source control.
- Section 6.0: Issues Encountered in Source Control Work – This section describes issues affecting DEQ's ability to conduct source control work and identifies paths forward towards resolution.
- Section 7.0: Summary – This section summarizes the overall status of source control work in Portland Harbor, highlighting accomplishments, key issues and next steps for moving forward.
- Section 8.0: Obtaining Additional Information on Upland Source Control Work – This section indicates where additional information can be found on the status of source control work at upland sites in Portland Harbor.
- Section 9.0: Information on Table 1: Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor – This section provides helpful information for interpreting Table 1, including definition of key terms and acronyms used.

## 2.0 Identifying Potential Sources of Contamination in Portland Harbor

DEQ's strategy for identifying and investigating potential sources of contamination to Portland Harbor prior to the December 2000 Superfund Site listing was described in the March 2006 Milestone Report. Those site identification and investigation activities were initially focused on a six-mile stretch of the lower Willamette River (now known as the Initial Study Area) extending from the southern tip of Sauvie Island upstream to Swan Island, from approximately River Mile 3.5 to River Mile 9.2. For more information, please see the March 2006 Milestone Report or please contact DEQ's Portland Harbor project manager, Jim Anderson at (503) 229-6825 or anderson.jim@deq.state.or.us

## 2.1 Recent Site Discovery and Site Assessment activities

As would be expected, DEQ's site discovery/site assessment activities have decreased now that we've reached an intermediate stage of the upland source control effort and the significant sources are being addressed. This is not to say that additional site discovery work won't be necessary, it simply means that we are currently directing our energy toward completing site investigations and source control measures at existing Environmental Cleanup Site Information (ECSI) sites.

There are two main efforts that will help shape DEQ's future site discovery activities. One is the information contained in the Lower Willamette Group's (LWG) Draft Risk Assessment and Remedial Investigation documents and the ongoing process to develop the draft Feasibility Study. It's possible that information from these documents could identify specific areas where additional source identification is warranted.

The second effort involves discovering stormwater sites. New stormwater site discovery efforts tend to be targeted and are triggered by recently collected data. The majority of this work is conducted as a collaborative effort between the City and DEQ under the Intergovernmental Agreement (IGA) between DEQ and the City's Bureau of Environmental Services (BES), to identify, investigate, and control contaminant discharges to shared City stormwater conveyance lines. Over the past two years, the City has undertaken a comprehensive source investigation effort on the east side of the river between RM 11 and 11.3. The City is also undertaking additional source investigations in Outfall Basins 52, 52C and 53 based upon the findings presented in their February 2010 *Stormwater Evaluation Report*. These efforts are described below.

River Mile 11-East Source Investigations

Round 3 Portland Harbor sediment data collected by the LWG identified sediments contaminated by polychlorinated biphenyls (PCBs) on the east side of the river between RMs 11 and 11.3. Subsequent in-river sediment sampling by the City identified elevated PCBs between RMs 11 and 11.5. The current conceptual model is that the sediment contamination is largely due to past releases from historic operations in the area, but that current stormwater and bank erosion pathways may still exist. To evaluate whether there are ongoing stormwater sources, the City implemented a sampling plan in three City stormwater basins discharging into the river between RM 11 and 11.3 (Basins 43, 44, and 44A). Source investigation efforts are presumed to be complete for Basins 44 and 44A and are still underway in the Outfall 43 basin. In Basin 44, PacifiCorp is currently implementing source investigation and control measures to address PCB-contaminated soils and to prevent contaminants from migrating offsite and to the river in stormwater runoff.

City of Portland's *Stormwater Evaluation Report (February 2010)*

There are 38 City outfalls in Portland Harbor. As part of the City's 20-year combined-sewer overflows abatement program, to be completed by 2011, all or a portion of the stormwater discharging through fifteen City outfalls are being diverted to the wastewater treatment plant. For basins that will continue to discharge to the river, the City conducted basin evaluations to determine if there was potential for significant sources in the basins. If so, source tracing was conducted to identify sources that need to be controlled through either DEQ or City authorities.

In 2009, the City undertook a comprehensive evaluation of stormwater and sediment trap data collected from City outfall basins to evaluate additional source tracing needs and help shape future data collection objectives. The evaluation included data collected by the City as well as data collected by the LWG and Port of Portland in support of the in-water Remedial Investigation. The findings from this evaluation generally support the City's and DEQ's belief that all major sources within City outfall basins have been identified. However, the results also indicate that additional investigation may be warranted in a small number of basins where slightly elevated concentrations of certain contaminants could not be explained by the known sources/land uses in those basins.

A status of the source identification efforts in the City outfall basins as of August 2010 is provided below. This information is also presented in Figure 1.

| **August 2010 Status of Source Identification at City Outfalls in Portland Harbor** | |
|---|---|
| **No Significant Sources in Basin and Insignificant or Incomplete Pathway** | |
| 19 Outfalls | Outfall Designations: M-2, M-3, S-2, S-5, 10A, 11, 13, 14, 19A, 22D, 23, 24, 42, 44A, 47, 48, 49, 50, 52A |
| **Source Identification in Basin is Complete** | |
| 15 Outfalls | Outfall Designations: M-1, S-1, S-6, 15, 16, 17, 18, 19, 22, 22B, 22C, 46, 44, 45, 53A |
| **Additional Source Identification Needed or May be Needed in Basin** | |
| 4 Outfalls | Outfall Designations: 43, 52, 52C, 53 |

## 2.2 Downtown Portland Willamette River Sediment Investigation

DEQ continues our work with the City of Portland and other partners to investigate sediment quality in the Willamette River upstream of the Portland Harbor in downtown Portland. The results of the initial investigation broadened our understanding of the previously existing limited sediment-quality data, and allowed us to gain a better understanding of the nature and extent of hazardous substances in the downtown reach. The first phase of the investigation collected surface sediment and/or cores samples from nearly 80 locations.

The field work for the downtown reach sediment investigation was completed in June 2008. Results from this first phase are compiled in the GSI Water Solutions, Inc 2009 report "*Field and Data Report, Downtown Portland Sediment Characterization*". This report can be viewed at: http://www.deq.state.or.us/lq/cu/nwr/willametteriver.htm

DEQ completed a review of this first phase of the investigation. The results of the review are found in a 2009 DEQ report entitled "*Downtown Portland Willamette River Sediment Evaluation- Preliminary Identification of Areas of Interest.*" A focused second phase of investigation was completed in early 2010. This Phase II sampling was completed to better prioritize areas of interest for follow-up action, lay the foundation for source identification investigations, and in some cases begin to assess contaminant extent. Results from the Phase II

work are compiled in GSI's 2010 "*Field and Data Report, Downtown Portland Sediment Characterization Phase II*". All reports can be viewed at: http://www.deq.state.or.us/lq/cu/nwr/willametteriver.htm

DEQ is evaluating the investigation results for both phases of work to help assess area-wide contaminant levels and identify areas where source identification efforts are warranted.

Within the downtown reach, PGE is conducting an investigation of in-water sediment and upland source control between RM 13.1 -13.5 east. Two upland preliminary assessments and data reports from three upland investigations and the in-water sediment investigation have been completed in 2010. A remedial investigation covering both in-water and upland data is due in late-2010. This information will help determine potential remedial and source control actions.

The Zidell Waterfront property is located at the upstream edge of the downtown reach on the west side of the river beneath the Ross Island Bridge. The ZRZ Realty Company (Zidell Company) and other site operators conducted ship dismantling, ship building, welding, and other miscellaneous industrial activities at the site from approximately 1925 to the mid-1960s. The Zidell Company began on-site barge-building operations in 1968 and those activities continue today. Portions of the upland property are impacted by releases of metals, petroleum hydrocarbons, PCBs, asbestos, and other contaminants. The Zidell Company is working under a DEQ consent judgment to cleanup contaminated upland soil and Willamette River sediment adjacent to their property. The Zidell Company initiated upland soil cleanup this summer, and plans to begin sediment remediation summer 2011.

## 3.0 Evaluating Potential Sources of Contamination to the River

DEQ is investigating or directing source control work at over 60 upland sites in Portland Harbor. Preliminary investigation activities at these sites are designed to determine whether the site is a potential or ongoing source of contamination to the river. These investigations, or "source control evaluations," consider all potential, current and historic contaminant sources and current or reasonably likely future contaminant migration pathways for the contaminants to be transported to the river. Potential pathways include:

- Direct discharges – Pollutants from commercial, industrial, private or municipal outfalls have in the past and continue to be discharged directly to the Portland Harbor Superfund Site. Levels of contaminants in historic discharge streams were much greater than recent and current loads due to better environmental awareness and government controls (e.g., permits. Many current discharges are permitted (general or individual permits) under the Clean Water Act National Pollutant Discharge Elimination System (NPDES). Permitted discharges include industrial wastes, stormwater runoff, and combined-sewer overflows (CSOs)[4].
- Groundwater – Contaminated groundwater may enter the river directly via discharge through sediments, bank seeps, or it may infiltrate into storm drains/pipes, ditches or creeks that

[4] CSO events are untreated discharges of combined stormwater, sanitary sewage from residential, commercial, and industrial sources that overflow from the sewer system into the river during heavy rainfall periods when the amount of stormwater and sewage exceeds the capacity of the collection system.

discharge to the river. Contaminant migration may occur as non-aqueous phase liquids (NAPLs) or as chemicals dissolved in the groundwater itself.

- Stormwater – Contaminants may be carried to the river by water that runs off a site into storm drains after it rains, delivered to the river by stormwater pipes (including permitted and unpermitted stormwater discharges).
- Overland transport/sheet flow – The uncontrolled flow of water from a site to the river and the transport of other materials from a site may deliver contaminants to the river.
- Bank erosion/leaching – River bank soil, contaminated fill, waste piles, landfills and surface impoundments may release contaminants directly to the river through erosion, via soil erosion to stormwater, or by leaching to groundwater.
- Overwater activities – Contaminants from overwater activities (e.g., sandblasting, painting, unloading, maintenance, repair and operations) at riverside docks, wharves, or piers; discharges from vessels (e.g., gray, bilge, ballast waters); full releases; and spills may affect the river.

These potential contaminant migration pathways are evaluated for each site, and upland contaminant concentrations are screened against conservative screening level values (SLVs) protective of human health and the environment. Sites that are identified as significant current or potential sources of pollution to the river are characterized and prioritized. Based on the resulting priority, either further source control evaluation is completed or source control measures are initiated.

Table 1 provides a summary of confirmed and suspected upland sources of contamination to the river that DEQ is either actively working on or has finished source control work on by issuing a final source control decision. Table 1 also provides the basis for the determination that a site is a source of contamination to the river, the status of and schedule for source control evaluation, and the priority of the site for source control. The table includes the priority of each contaminant migration pathway for each site, as well as the overall priority of the site based on the pathway priorities.

High priority sites are identified in the table based on existing site information, and subsequent Milestone Reports will identify any new high priority sites as new information becomes available. Source control is expected to move forward at high priority sites without delay.

## 4.0 Taking Measures to Control Sources and Making Source Control Decisions

DEQ determines the need for source control measures at each upland site, in consultation with EPA, based on the completeness of contaminant migration pathways, exceedances of SLV, and other factors as appropriate. See p. 3-1 through 3-6 of the JSCS for more information about SLVs, and p. 4-1 through 4-10 of the JSCS for more information about the source control decision process.

### 4.1 Types of source control measures

Upland source control is an iterative process where early steps may be revisited and conclusions refined by information gathered later in the process. A combination of tools may be used to control a source, including but not limited to the following.

- Technical assistance – Technical assistance, often provided during inspections, provides technical information designed to help individual businesses bring their facilities into compliance with environmental regulations. DEQ's Hazardous Waste Program has and continues to provide technical assistance to facilities within the Portland Harbor Superfund Site area.
- Cleaning-up contaminated upland areas – Cleanup work addresses contaminated soil, groundwater, stormwater and other sources; and focuses on reducing or eliminating contaminant migration to the river. Common source control measures include removing highly contaminated soil areas, stabilizing or capping contaminated bank areas, treating or containing contaminated groundwater, and extracting contaminated sediment from storm sewer systems. Source control measures vary from site to site.
- Source control of active discharges – Tools to control active discharges include best management practices (BMPs), industrial process changes, pollution prevention practices, and technology-based effluent controls. Compliance is achieved voluntarily or through administrative actions, including permits or enforcement.
- Source control of stormwater – Stormwater source control is complex because storm drain systems capture discharges from many different sources (e.g., land use activities, runoff from contaminated sites, and infiltration of contaminated groundwater into the storm drain system). Stormwater regulation also involves state and local agencies implementing MS4 and 1200Z general stormwater permits. Because of this complexity, all of the tools described above are useful for stormwater source control and will be used as appropriate.
- Administrative actions and enforcement – Administrative actions include licenses, permits, deed restrictions, requirements for site development plans, and enforcement actions; which may be necessary when administrative actions are violated. Agencies rarely take enforcement actions without first conducting an inspection and documenting findings, requested changes, warnings and offers of technical assistance. When enforcement actions are warranted, they are usually taken in escalating order, starting with notices of violation, moving to enforcement or compliance orders requiring specific changes by a set date, and ending with monetary penalties, court action or DEQ's takeover of investigation or cleanup work. Formal cleanup actions performed under an order or decree use oversight and enforcement to ensure that appropriate actions are taken in a timely manner.

Table 1 summarizes source control decisions at upland sites, the basis for the determination that upland source control measures are necessary, a summary of the selected source control measure(s), and a schedule for implementing the source control measure(s). Figure 2-a-c displays most sites listed in Table 1.

### 4.2 DEQ coordination with EPA and partners on source control decisions

As the Lead Agency for identifying and controlling sources of upland contamination threatening the river in Portland Harbor, DEQ coordinates with EPA and our government partners on source

control work. This includes documenting, tracking and coordinating source control efforts as described in Sections 2.5 and 7 of the JSCS.

DEQ provides EPA and our partners an opportunity to review and comment on source control decisions prior to being finalized. These decisions typically fall into the following three categories.

- DEQ determined that a site is not a current or future significant source of contaminants to Portland Harbor and that no source control measures are required.
- DEQ selected the source control measures for a site.
- DEQ concluded that source control at a site is complete, or in the case of systems that require operation and maintenance (e.g., hydraulic containment), that the source control action is effective.

DEQ informs EPA and our partners of pending source control decisions and the schedule for review, and provides copies of source control decision documentation to EPA and partners upon request. EPA and partners have 30 days to provide comments to DEQ on source control decisions.

In addition to this regular review and comment process, some upland sites in Portland Harbor may warrant closer coordination between DEQ, EPA, and our partners for source control (e.g., the Gasco site and potential source control measures for the chlorinated solvent groundwater plume at the Siltronic site). In these instances, DEQ and EPA source control coordinators will develop project-specific coordination strategies.

### 4.3 Public involvement in source control decisions

DEQ Cleanup Program statutes and rules require that a public notice and comment opportunity be provided prior to DEQ's selection of a final site cleanup remedy and before DEQ determines that the cleanup is complete. For upland Portland Harbor cleanup projects, this means that DEQ issues a public notice and seeks public comments on the recommended final site cleanup strategy. Once public input is considered, DEQ's final decision is typically documented in a Record of Decision (ROD) for the site. For most sites, the upland DEQ ROD includes elements that address both source control for Portland Harbor and cleanup actions specific to areas of upland contamination that are not related to pollution in the Harbor.

Many of the source control measures implemented at upland sites are conducted prior to the selection of the final upland site-wide remedy. While public notice and comment is not required for these "interim" removal actions under DEQ statutes and rules, DEQ typically issues a public notice and seeks public comments when the action is likely to be a substantive piece of the final site remedy, or as the DEQ project manager determines is appropriate.

DEQ does not typically seek public comments for small-scale interim source control measures and time-critical actions. Project managers will, however, issue notices and/or press releases as appropriate to let the public know that the activity is being conducted.

## 5.0 Status of Ongoing and Completed Source Control Activities

Table 1 summarizes the status of ongoing source control activities; including source control evaluations (SCEs), source control decisions (SCDs), and source control measures (SCMs). Table 1 also provides information on source control activities completed to date, proposed SCM activities, and a target schedule for completion.

Table 1 also summarizes completed SCMs and provides the date that the SCM was completed, the date of EPA review and comment, and any operation and maintenance requirements associated with the SCM.

As of September 2010, the DEQ categorized 90 sites (see Table 1) into the following source control categories:

**High Priority Sites**- 11
**Preliminary High Priority Sites**- 5
**Medium Priority Sites**- 24
**Low Priority Sites**- 23
**Priority "To Be Determined" Sites**- 3
**Sites with Source Control Decisions**- 24

The status of High Priority and Preliminary High Priority sites is presented in Table 2. Twelve of the 16 High Priority sites currently have at least interim SCMs in place. Some of the more important actions in-place or anticipated at the High Priority sites include:

-**Evraz Oregon Steel Mills**- Two separate source control efforts are moving forward at the EOSM site. 1st, stormwater is being addressed through a combination of best management practices and end-of-pipe treatment. Phase I of the end-of-pipe treatment, addressing stormwater flow to the northern facility outfall, was installed in 2007 and underwent pilot testing in 2007/2008. Based on the results of the pilot test, the system was expanded to capture stormwater flow going to the central facility outfall in 2008. A Phase II pilot study was conducted in 2009. EOSM will conduct testing to evaluate any toxicity associated with the coagulant they are using followed by a loading evaluation to assess contaminant releases to the Willamette River via stormwater. EOSM is hoping to complete both studies in the 2010/2011 water year, and determine if any further stormwater source control action is necessary. 2nd, riverbank treatment source control measures are in re-design largely to resolve stakeholder concerns regarding mitigation, habitat conservation and restoration, and to incorporate bioengineering components. EOSM plans to re-submit their 404 Permit application in 1st quarter 2011, re-engage natural resource trustee stakeholders in the new design, and construct the riverbank source control measure in 2012 or 2013.

-**Schnitzer Steel**- Schnitzer Steel proposed a stormwater management plan in fall 2008. The plan will provide comprehensive management of stormwater including both re-use as on-site process water and end-of-pipe treatment. Phase 1A of the plan calls for abandoning a number of stormwater outfalls, collecting stormwater from most of the site, routing the stormwater thru screen filters to a storage tank, and then either re-using the water or discharging the water under an NPDES permit. The storage tank discharges to the river will be monitored and compared to JSCS SLVs. Additional treatment will be added if necessary. Phase 1A was completed late 2009. Phase 1B consists of paving the Phase 1A construction area. Phase 2 will capture stormwater from several additional on-site

drainage basins and route the stormwater to the new filtration and storage system. Phase 2 stormwater improvements are expected to be constructed in fall 2010 and summer 2011. Stormwater basins not captured by the on-site end-of-pipe treatment will be evaluated by the SCE process.

-**Arco/BP**- A new permanent seawall sheetpile wall was installed in summer 2007. The sheetpile wall will enhance existing hydraulic control of contaminated groundwater. A riverbank soil and near-shore sediment removal and capping was completed in fall 2008. Approximately 16,000 cubic yards (cy) of petroleum-contaminated soil/sediment were removed and shipped offsite for disposal. The project was completed in summer 2009 by removing the in-river temporary sheetpile wall, final site grading, and planting.

-**Gasco**- NW Natural's Gasco site (which includes NW Natural's manufactured gas plant contamination on the Siltronic site) is a High Priority site for upland source control. The distribution and magnitude of upland contamination at the Gasco site is extensive and very significant. Based on an October 2007 Focused Feasibility Study (FFS), DEQ selected a SCM combination consisting of a vertical barrier wall and groundwater pump-and-treat system in the Gasco former tar pond area and pump-and-treat elsewhere along the shoreline. NW Natural recently completed a number of studies to support the design of this SCM. Based on their studies, NW Natural recommended a revised SCM in summer 2009 for the former tar pond area consisting of only the pump-and-treat component. DEQ has a number of concerns with NW Natural's recommended SCM..., particularly that it will exacerbate exiting conditions by potentially mobilizing manufactured gas plant waste (dense non-aqueous phase liquid) without capturing it. In June 2010, DEQ directed NW Natural to move forward with source control of dissolved phase contamination along approximately 1,300 feet of shoreline and defer source control in the former tar pond area to the upland feasibility study so that source control could be considered comprehensively. DEQ and NW Natural are currently in formal dispute resolution over source control in the former tar pond area. We expect to resolve the dispute in fall 2010.

-**Siltronic**- An amended FFS was submitted December 2007 recommending an enhanced in-situ bioremediation (EIB) SCM for the Siltronic chlorinated solvent groundwater plume. DEQ selected EIB to be applied in the release area. Siltronic completed application of EIB treatment media in the source area in summer 2008, has recently proposed expanding use of EIB further upgradient of the release area, and is currently monitoring results from the SCM.

-**Arkema**- Arkema is working on three separate upland source control efforts at their site. 1st, Arkema submitted an FFS for groundwater/NAPL in summer 2008. DEQ selected a slurry wall/groundwater extraction system as the SCM in 2009, and the SCM is in design. We anticipate SCM construction to begin in summer 2011. 2nd, Arkema submitted a stormwater FFS in summer 2008, DEQ selected a stormwater SCM earlier this year and Arkema entered a DEQ Water Quality Mutual Agreement and Order in July 2010 to design, construct and monitor a new stormwater system. The stormwater SCM will consist of berming the perimeter of the site to prevent off-site overland flow, temporarily capping higher-level contaminated soil, decommissioning the existing collection and conveyance system including 3 of the 4 existing outfalls, installing a new collection/conveyance system which will route stormwater to a detention pond to reduce the suspended load, and discharging stormwater from the pond through a filter system to

the river. Stormwater SCM construction is expected to begin in 2011 and conclude by the end of 2011. 3rd, Arkema evaluated their riverbank and the threat that portion of the site poses to the river. Riverbank source control is anticipated to be incorporated into the EPA-lead in-water Early Action at Arkema. Arkema will evaluate riverbank SCM options in 2010-11.

-**Rhone-Poulenc**- The responsible party at Rhone Poulenc, SLLI, is working on three major upland source control/evaluation efforts at their site. 1st, SLLI submitted a comprehensive SCE report in early-2008, DEQ reviewed the report, SLLI will revise the report after collecting significant additional hydrogeologic information to inform the conceptual site model, and submit the revised report in October 2010. 2nd, SLLI pilot tested several SCMs to treat and/or control their most significant groundwater plume threatening the river. SLLI has completed an extensive, long-term groundwater pumping test to support the design of their North Front Avenue SCM which targets contaminated groundwater moving in the highly conductive fractured basalt zone. The pumping test includes a number of extraction wells that could largely comprise the SCM. The pumping test concluded in August 2010. Construction of any supplemental portions of the SCM is anticipated for early 2011. 3rd, SLLI removed accumulated sediment from Outfall 22B stormwater lines and grouted the lines to at least partially prevent contaminated groundwater from invading the lines. In the second half of 2009, SLLI cleaned out the lines and installed impermeable liners in the stormwater lines to further prevent groundwater invasion. In addition to these three ongoing source control efforts, SLLI: 1) spent two field seasons removing drums and debris from the Doane Lake area, 2) completed an on-site Facility Structures Interim Remedial Action Measure (IRAM); 3) completed the Groundwater Extraction and Treatment System (GETS IRAM) in 2005 designed to capture alluvial zone groundwater in the Herbicide Area; and 4) started the West Doane Lake (WDL IRAM) in 2010 to stabilize and cap West Doane Lake sediments.

DEQ developed five specific goals for our source control efforts. These goals will track DEQ source control efforts to achieve the overarching goal of source control: to identify, evaluate and control sources of contamination that may affect the Willamette River in coordination with the objectives and schedule for the Portland Harbor RI/FS.

The goals described below are aggressive goals that were based on an anticipated ROD date of 2010. While much progress has been made to reach these goals, some remain outstanding. Some of the reasons these goals have not been achieved include the complexity of the work, work load for both DEQ and upland responsible parties, and obstacles in implementing the work. While all the goals have not been met, DEQ believes these sites remain on-track to achieve source control at the High Priority sites by the time of the Portland Harbor ROD. The Portland Harbor ROD is now optimistically anticipated to be completed in late-2012. Dates for the goals below have been adjusted to better reflect the current status and the new anticipated ROD date.

**Goals and Status for High Priority Sites**

**Goal 1**- Source Control Evaluations (SCE) completed at all High Priority sites by 1/1/10.

**Goal 1 Status as of 9/10**

-2 of 16 SCEs completed

-2 of 16 SCEs currently under review by DEQ, to be completed in 2010
-5 of 16 SCEs to be completed in 2010
-Of the 7 remaining High Priority sites (16 minus 9) that are either not completed or are not on schedule to be completed by the end of 2010, stormwater is the only outstanding pathway to be completed in 4 of the 7 sites.

**Goal 2**- SCMs selected at all High Priority sites by 7/1/10.

**Goal 2 Status as of 9/10**

-Interim or final SCMs have been selected and have been implemented at 12 of 16 sites. These sites include: 1) EOSM (stormwater), 2) Schnitzer Steel (stormwater), 3) Kinder Morgan Linnton (groundwater ), 4) Exxon/Mobil (groundwater), 5) Arco/BP (groundwater and riverbank/beach), 6) MarCom South (overland runoff), 7) Siltronic (groundwater), 8) Rhone Poulenc (groundwater and stormwater), 9) Arkema (groundwater), 10) Willbridge (groundwater), 11) Gunderson (groundwater), and 12) City Stormwater (line cleanouts).

-Selection of SCMs at other High Priority sites is anticipated over the next 6-12 months. For instance, 1) DEQ selected a significant SCM at the Gasco site in March 2008. NW Natural completed a series of field efforts designed to support the detailed design of this SCM, a vertical barrier wall/groundwater extraction well system. NW Natural proposed a revised SCM in their 11/09 Interim Design Report, and DEQ and NW Natural are currently in formal dispute resolution over the next steps in source control and the upland RI/FS. We expect the dispute to be resolved in fall 2010...., 2) EOSM has further characterized the nature and extent of riverbank contamination, produced initial designs, and has been in negotiation with the Corps and natural resource trustees for the construction of riverbank treatment SCM at their facility. Construction of that river bank SCM is expected to begin in 2011 or 2012...., 3) late-2009 construction of an end-of-pipe stormwater filtration, storage and reuse at the Schnitzer Steel site. Schnitzer Steel is currently expanding the area of their facility that drains into the stormwater re-use/treatment system..., 4) DEQ recently selected a vertical barrier wall/groundwater extraction wells system as a groundwater/NAPL SCM for the Arkema site. The SCM is currently in final design and construction is scheduled to begin in 2011. DEQ also recently selected a stormwater SCM for the Arkema site. The stormwater SCM is currently in design and construction is expected to begin in 2011.

**Goal 3**- SCMs constructed and effectively operating at all High Priority sites by 1/1/12.

**Goal 3 Status as of 9/10**

-5 of 16 sites have effective groundwater SCMs operating. These 5 sites include: 1) Exxon/Mobil, 2) Gunderson, 3) Willbridge, 4) Arco/BP, and 5) Siltronic.

**Goals and Status for Medium and Low Priority Sites**

**Goal 4**- SCE completed at all Medium and Low Priority sites by 1/1/11

**Goal 4 Status as of 9/10**

-Two of the 24 Medium Priority sites currently have completed SCEs..., 10 of the 24 sites have interim source control measures in-place..., and 7 of the 24 sites are on schedule to be completed in 2010. Two of the 23 Low Priority sites currently have

completed SCEs..., 13 of the 23 have interim source control measures in-place..., and 7 of the 23 sites are on schedule to be completed in 2010.

**Goals and Status for Priority "To Be Determined (TBD)" Sites**

**Goal 5**- Completed prioritization at all TBD sites by 1/1/10.

**Goal 5 Status as of 9/10**

-2 of the 3 sites are EPA-lead sites (Vanwaters-&-Rogers & US Moorings).
-Koppers is the one last TBD site.

## 6.0 Issues Encountered in Source Control Work

This section summarizes issues affecting DEQ's completion of source control work. This section also presents the steps DEQ is taking to resolve the issues and complete source control work.

Issue 1: Moving projects through the source control process

Certain DEQ Portland Harbor cleanup projects are not proceeding through the source control process at an acceptable pace. There continues to be a number of reasons for the lack of adequate progress at these sites, including: complexity of the site, limited DEQ staff resources, uncertainty regarding liability/responsibility for the needed environmental work, reluctance of the responsible party to move forward, and economic strains on many of the responsible parties. Source control activities at these sites need to be accelerated in order to identify, evaluate and control upland contaminant sources before the Portland Harbor ROD. Moving High Priority sites forward has been an ongoing issue for DEQ. We are focusing our attention on these sites and working with the upland responsible parties to move these projects forward. Two of these sites include:

- **Burgard Industrial Park**
  Problem: At one time, Schnitzer Investment Corporation (SIC) owned the roughly 200-acre Burgard Industrial Park (BIP) that partially surrounds the International Terminals Slip at RM 4. A number of tenants leased properties in BIP. Over the past several years, SIC sold much of the BIP, including approximately 81 acres to Schnitzer Steel in May 2005. Schnitzer Steel operates their scrap metal recycling yard and marine terminal on property sold in 2005. DEQ now understands SIC currently owns approximately 21.5 acres of the BIP. SIC entered into a DEQ Voluntary Agreement in 2000 to perform a remedial investigation and source control measures for BIP. Since signing the agreement, DEQ and SIC have focused on the Schnitzer Steel portion of the BIP area. DEQ recently requested SIC conduct SCE in BIP outside the Schnitzer Steel site. SIC initially declined our request stating that since SIC didn't have access rights to the property they sold, and SIC would not be able to perform SCE for the portions which have been sold.
  Path to resolving and Progress Made since the December 2009 Milestone Report: SIC has now agreed in concept to conduct stormwater source control evaluations at BIP, and DEQ and SIC are negotiating a scope of work and implementation schedule for that work. However, that scope of work and implementation schedule has not been finalized.
- **GS Roofing**
  Problem: The DEQ project manger overseeing work at GS Roofing left DEQ in 2007, and the vacant position was not filled in a timely manner due to agency budget constraints. This,

and continuing staff-resource challenges has affected the progress of source control work at the site.

Path to Resolving: DEQ made GS Roofing site a priority for staffing and accelerated source control work. GS Roofing conducted independent investigations of the facility. The next step in the project is for DEQ to review this information and provide direction regarding what additional work is required and a schedule for this work. DEQ assigned a new project team to the GS Roofing project in early 2009.

Progress made since December 2009 Milestone Report: GS Roofing completed a stormwater system characterization effort and implemented several BMPs in response to the findings. The stormwater SCE report is expected to be completed in early 2011. The responsible party is developing a scope of work for the remaining elements of a comprehensive SCE.

Issue 2: Completing source control at the Gasco site

NW Natural's Gasco site (which includes NW Natural's manufactured gas plant contamination on the adjoining Siltronic property) is a High Priority site for upland source control. The distribution and magnitude of upland contamination at the Gasco site is extensive and very significant. Based on an October 2007 Focused Feasibility Study, DEQ selected a SCM combination consisting of a vertical barrier wall and groundwater pump-and-treat system in the Gasco former tar pond area and pump-and-treat elsewhere along the shoreline. NW Natural recently completed a number of studies to support the design of this SCM. Based on their studies, NW Natural recommended a revised SCM in summer 2009 for the former tar pond area consisting of only the pump-and-treat component. DEQ has a number of concerns with NW Natural's recommended SCM..., particularly that it will exacerbate exiting conditions by potentially mobilizing manufactured gas plant waste (dense non-aqueous phase liquid) without capturing it. In June 2010, DEQ directed NW Natural to move forward with source control of dissolved phase contamination along approximately 1,300 feet of shoreline and defer source control in the former tar pond area to the upland feasibility study so that source control could be considered comprehensively. DEQ and NW Natural are currently in formal dispute resolution over source control in the former tar pond area. We expect to resolve the dispute in fall 2010.

Issue 3: Completing source control at the Arkema site

As stated in Section 5, Arkema is working on three separate upland source control efforts at their site. 1st, Arkema submitted an FFS for groundwater/NAPL in summer 2008. DEQ selected a slurry wall/groundwater extraction system as the SCM in 2009, and the SCM is in design. We anticipate SCM construction to begin in summer 2011. 2nd, Arkema submitted a stormwater FFS in summer 2008, DEQ selected a stormwater SCM earlier this year and Arkema entered a DEQ Water Quality Mutual Agreement and Order in July 2010 to design, construct and monitor a new stormwater system. The stormwater SCM will consist of berming the perimeter of the site to prevent off-site overland flow, temporarily capping higher-level contaminated soil, decommissioning the existing collection and conveyance system including 3 of the 4 existing outfalls, installing a new collection/conveyance system which will route stormwater to a detention pond to reduce the suspended load, and discharging stormwater from the pond through a filter system to the river. Stormwater SCM construction is expected to begin in 2011 and conclude by the end of 2011. 3rd, Arkema evaluated their riverbank and the threat that portion of the site poses to the river. Riverbank source control is anticipated to be incorporated into the

EPA-lead in-water Early Action at Arkema. Arkema will evaluate riverbank SCM options in 2010-11.

Issue 4: DEQ staff resource limitations
Limited staff resources continue to affect DEQ's ability to conduct and complete source control work in Portland Harbor. Current and projected future state budget estimates continue to challenge DEQ. Over the last several years DEQ hired four new project managers and a GIS Coordinator to work on Portland Harbor projects and other projects. DEQ continually looks at staff work load and develops priorities to address the most important work. DEQ will continue Portland Harbor source control efforts focusing on the most significant and potentially significant upland sources.

Issue 5: Stormwater evaluation and control
Stormwater pathway evaluations are a relatively new and evolving effort for DEQ's Cleanup Program. In January 2009, DEQ issued its *Guidance for Evaluating the Stormwater Pathway at Upland Sites*. The guidance is currently being updated and this version will be available in October 2010 on DEQ's Portland Harbor website at:
http://www.deq.state.or.us/lq/cu/stmwtrguidance.htm

The updates to the guidance are intended to accomplish two objectives:

1. Make minor revisions to the text to clarify decision-making criteria.
2. Add a tool for evaluating stormwater data. This tool is described below.

Using the sizeable stormwater dataset generated by Portland Harbor investigations, DEQ developed a tool to assist with data interpretation. The tool can be used to help distinguish "typical" concentrations of contaminants in industrial stormwater from "elevated" concentrations that may indicate an uncontrolled source of contamination at a site. This distinction is important because it helps to determine the type of response warranted at the site. In general, stormwater discharges related to "normal' industrial operations are managed with stormwater Best Management Practices (BMPs) and, where appropriate, are regulated under Water Quality permits. If an uncontrolled contaminant source is suspected, it may be appropriate to invoke Cleanup Program regulations to conduct additional investigation and source control measures.

## 7.0 Summary

DEQ is making significant progress in controlling sources of contamination to the lower Willamette River in Portland Harbor, and is coordinating resources of its Cleanup, Hazardous and Solid Waste, Water Quality and Spills Programs to achieve upland source control objectives by the expected time of the Portland Harbor Record of Decision or shortly after. To date, DEQ has identified 90 upland sites that may be potential sources of contaminants in Portland Harbor, and most of these sites have been prioritized for additional investigation or source control. Additionally, DEQ evaluated a number of sites in our site discovery process throughout the Portland Harbor project and concluded these sites do not threaten the river.

As of September 2010, the DEQ categorized 90 sites (see Table 1) into the following source control categories:

**High Priority Sites**-11
**Preliminary High Priority Sites**- 5
**Medium Priority Sites**- 24
**Low Priority Sites**- 23
**Priority To Be Determined Sites**- 3
**Sites with Source Control Decisions**- 24

DEQ will submit a Milestone Report to EPA twice a year, with the next Milestone Report scheduled for March 2011, and update Table 1 and Table 2 with the current status of source control work at all upland sites. For more information about the Milestone Report or DEQ's source control work generally, please contact Jim Anderson, DEQ Portland Harbor Project Manager, at (503) 229-6825, or anderson.jim@deq.state.or.us.

## 8.0 Obtaining Additional Information on Upland Source Control Work

For more information on DEQ's source control work at any of the sites listed in Table 1, see DEQ's Portland Harbor web page (http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/index.htm) and click on "Upland Sites map" in the right hand corner. This link provides a map showing all Portland Harbor upland sites and summary reports of the status of source control work. Just open the map and click on the site you are interested in to connect to DEQ's Environmental Cleanup Site Information (ESCI) database, which houses current information on work at each site.

Alternatively, contact the DEQ project manager (PM) that is leading work on the site you are interested in. Contact information for each DEQ PM is listed on the last page of this report.

For more information on the status work on the Portland Harbor Superfund Site, see EPA's Portland Harbor web page (http://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor).

## 9.0 Information about Table 1: Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

The purpose of Table 1, entitled Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor, is to track and share information on the status of DEQ's efforts to evaluate and control sources of pollution to the Willamette River in Portland Harbor. The table provides information on each upland site that DEQ is working on in the Harbor, including the status of evaluations to determine whether source control is needed, the progress of source control measures, and the status of source control decisions and EPA review. Below is some helpful information for interpreting the table, including definitions for key terms and acronyms.

### Site Information and Project Status

The first columns of Table 1 provide basic background information on each site, including:

- the name of the site,

- the site's reference number for DEQ's Environmental Cleanup Site Information (ESCI) database,
- the location of the site (river mile and address),
- the DEQ project manager that is leading source control work,
- the type of agreement DEQ is using to direct cleanup activities at the site (i.e., Intergovernmental Agreement, Portland Harbor Agreement, Unilateral Order, etc.), and
- the status of work occurring at the site (i.e., Preliminary Assessment, Remedial Investigation, completed Source Control Decision, Remedial Design/Remedial Action, etc.).

Sites are listed in Table 1 based on their position alongside the Willamette River, or the "River Mile" associated with their location. The River Mile indicates distance of the site from the Willamette River's confluence with the Columbia River. Sites associated with a lower river mile occur downstream of sites with a higher river mile.

Sites listed in Table 1 are those in Portland Harbor at which DEQ is actively overseeing upland investigation or source control actions, or for which source control decisions have been made. DEQ updates the site information in ECSI when a Strategy Recommendation is made, but a site is not added to Table 1 until active oversight of the project is provided by DEQ.

**Source Control Evaluation**

The Source Control Evaluation (SCE) columns in Table 1 provide information on the status of DEQ's work to evaluate the need for source control measures, including the status of SCE for each potential pathway, the schedule for completing SCE, the basis for determining whether source control measures are needed, and the status of EPA review.

Potential pathways

Six standard pathways represent the major potential pathways that contaminants could follow to reach the river from an upland site. These pathways include:

- overland transport/sheet flow – the uncontrolled flow of water and other material to the river from a site
- bank erosion – erosion of material within the sloping bank areas of the site to the river
- groundwater – groundwater plumes or discharges to the river via seeps or through preferential pathways
- stormwater – stormwater discharges to the river that originate from a pipe or stormwater system, including unpermitted stormwater discharges and discharges under a DEQ general stormwater permit
- overwater activities – the storage or use of hazardous substances over the water (i.e., storage tanks on docks, permanent work activities conducted over water), that if released would be a potential current or future source of contamination to the river; pipelines and other conveyance systems are not considered in this category, releases from these types of systems are reported to the Oregon Emergency Response System (OERS) system for clean up
- other – may include permitted wastewater discharges, individually permitted stormwater discharges, air deposition or other pathways

Each of these standard pathways appears for each site in Table 1 to track SCE work on a pathway-specific basis.

Basis for determining the need for source control

DEQ evaluates each of the pathways listed above to determine the need for source control measures. DEQ makes this determination based on: (1) whether contaminants are present and whether the pathway is capable of carrying them to the river (if it is, the pathway is called "complete"); and if a complete pathway exists, (2) whether it is carrying contaminants to the river at concentrations that exceed the Screening Level Values (SLVs) provided in the Joint Source Control Strategy (JSCS)[5].

Three general examples are provided below.

- Example 1: Initial investigations of a site that is adjacent to the river indicate that bank soils have the potential to erode and carrying contaminants into the river. DEQ oversees a SCE to determine whether contaminants are in fact present in the bank soils and whether the eroded bank soils are carrying or could carry those contaminants into the river. The SCE concludes that contaminants are present in the bank soils and the soils are carrying contaminants into the river; the pathway is deemed "complete." The SCE then determines whether the bank soils are carrying or could carry contaminants to the river at concentrations that exceed the SLVs in the JSCS. If they are or could carry contaminants to the river at concentrations exceeding SLVs, DEQ determines that source control measures may be needed and assigns a priority of high or medium to the pathway based on the degree of SLV exceedance (see "Priority levels for each pathway and site" below for more information on the priority levels). If it is a high priority, then the RP should move forward aggressively evaluating, designing, and implementing SCMs. If it is medium priority, then the RP should use the weight-of-evidence approach to determine if further SCE is needed or if SCMs are needed.
- Example 2: Initial investigations of a site adjacent to the river indicate that groundwater has the potential to migrate toward the river and carry contaminants. DEQ oversees a SCE to determine whether contaminants are present in the groundwater and whether the groundwater is carrying or could carry those contaminants into the river. The SCE concludes that groundwater is or could carry contaminants into the river, but only at concentrations significantly below the SLVs listed in the JSCS. DEQ determines that the pathway is "complete," but no source control actions are needed because SLVs are not exceeded.
- Example 3: Initial investigations of a site near (but not adjacent to) the river indicate that stormwater has the potential to migrate toward the river and carry contaminants. DEQ oversees a SCE to determine whether stormwater is in fact migrating to the river and whether it is or could carry contaminants to the river. The SCE concludes that stormwater is actually not reaching the river and could not reach the river because it is diverted to a stormwater treatment system. DEQ determines that the pathway is "not complete" and no source control actions are needed.

Definition of "Insignificant pathway; no actions recommended"

[5] See p. 3-1 through 3-6 of the JSCS for more information about SLVs.

The term "insignificant pathway; no actions recommended," is used in Table 1 when (1) the pathway is complete, and (2) contaminant concentrations are near or below SLVs at a point of compliance (e.g., river bank monitoring wells) and are not anticipated to increase.

Use of "N/A" for the pathways

"N/A" is used in Table 1 to indicate that the particular pathway does not exist at the site. For example, for an upland site that is set back from the river (i.e., not adjacent to the river's edge) N/A would indicate that the overland transport/sheet flow, overwater activities, and bank erosion pathways do not exist at the site. For a site that is adjacent to the river, but where a concrete seawall lines the river bank, N/A would indicate that the pathway bank erosion does not exist at the site.

Priority levels for each pathway and site

Each pathway evaluated at each site is given a priority level for source control upon completion of the SCE, or when adequate information exists to determine the pathway's priority. Pathways are prioritized based on their ability to carry contaminants from upland areas to the river at concentrations that exceed SLVs. Each site is then given a priority level based on the highest priority of the pathways. For example, if a site has two low priority pathways and one high priority pathway, the site is determined to be a high priority for source control. Definitions for high, medium and low priority determinations follow.

- High – High priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is significantly impacting the river or poses a significant and imminent threat to the river based on initial evaluation of key source control prioritization factors (listed on p. 4-3 of the JSCS). A primary consideration is that one or more media (soil, groundwater or stormwater) significantly exceed applicable SLVs at the point of discharge to the river (e.g., water at the end of a discharge pipe or soil or material at the riverbank) or the most reliable and cost-effective data point (e.g., groundwater measured at the shoreline), or where a bioaccumulative chemical is detected at concentrations significantly above the SLV. In addition, if an upland source is violating DEQ narrative water quality criteria for the Willamette River, the site may be considered a high priority. High priority sites are expected to move forward with aggressive source control measures without delay or be subject to enforcement action.
- Medium – Medium priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is impacting the river or poses a significant and/or imminent threat to the river based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 of the JSCS). A primary consideration is that one or more media exceed applicable SLVs, but not significantly, at the point of discharge to the river, or where a bioaccumulative chemical is detected at concentrations above the SLV. Although exceedance of SLVs does not necessarily indicate that a site poses a significant and/or imminent threat or needs to immediately implement source control measures, it does indicate that the site may pose a threat to human health or the environment and that additional evaluation may be needed to determine if source control measures are required to prevent, minimize or mitigate the migration of hazardous substances to the river. If the site exceeds one or more SLVs, the need for further characterization or for implementation of source control measures will be based on a site-specific weight-of-evidence determination.

Medium priority sites are expected to perform a weight-of-evidence evaluation to determine if source control measures are required (see p. 4-5 of the JSCS for more information on the weight-of-evidence evaluation).

- Low – Low priority pathways and sites are those where upland data indicate, based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS), that the site likely poses a low threat to the river (e.g., concentrations are near or below SLVs) or where DEQ, in consultation with EPA, may issue an upland "No Further Action" (NFA) determination or lower the State's priority of the site for further upland investigation or remedial action under DEQ's cleanup authority. Source control measures will not be required at low priority sites unless determined necessary by the results of the Portland Harbor RIFS or ROD.
- p High – DEQ's preliminary determination is that this is likely a high priority pathway or site based on available information. A final determination of pathway or site priority will be made upon completion of the SCE.
- p Med – DEQ's preliminary determination is that this is likely a medium priority pathway or site based on available information. A final determination of pathway or site priority will be made upon completion of the SCE.
- p Low – DEQ's preliminary determination is that this is likely a low priority pathway or site based on available information. A final determination of pathway or site priority will be made upon completion of the SCE.

**Source Control Decisions and Status of Source Control Measures**

The Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) columns in Table 1 provide information on actions taken or needed to control sources of contamination to the river, including the selected SCMs for each pathway, status of SCM implementation, status of EPA review, and ongoing operation and maintenance requirements.

For many sites listed in Table 1, boxes for information on SCDs and SCMs will be blank because source control work at those sites is still in the evaluation (SCE) phase. Other sites may be in the process of implementing SCMs, and still others may have completed all source control work. For those sites that have completed upland source control and SCMs have been determined to be effective, shading indicates that work is finished at this point in time. Upon completion of the Portland Harbor in-water RIFS, however, DEQ will reevaluate all source control work to ensure that it adequate controlled contaminants to the final cleanup levels developed for the Harbor.

## 9.1 Acronyms and abbreviations

| | |
|---|---|
| Agr | Agreement |
| AOC | Administrative Order on Consent |
| AS/SVE | Air sparge/soil vapor extraction – a Source Control Measure used to remove volatile contaminants from groundwater; often combined with treatment measures |
| AST | Above ground Storage Tank |

| | |
|---|---|
| AWQC | Ambient Water Quality Criteria |
| BES | Bureau of Environmental Services |
| BIP | Burgard Industrial Park |
| BMPs | Best Management Practices |
| BRA | Baseline Risk Assessment |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| COI | Contaminant of Interest – chemicals present in Portland Harbor at levels that could threaten human health and the environment |
| CSOs | Combined-Sewer Overflows |
| cy | Cubic Yard |
| DEQ | Oregon Department of Environmental Quality |
| ECSI | DEQ's Environmental Cleanup Site Information database |
| EIB | Enhanced In-situ Bioremediation |
| EPA | Environmental Protection Agency |
| FS | Feasibility Study – a phase of the cleanup process; evaluating cleanup alternatives after the Remedial Investigation has been completed |
| FFS | Focused Feasibility Study |
| GW or gw | Groundwater |
| ICP | Independent Cleanup Pathway |
| IGA | Inter-Governmental Agreement |
| IRAM | Interim Remedial Action Measure |
| HVOCs | Halogenated Volatile Organic Compounds |
| IRAM | Interim Remedial Action Measure |
| JSCS | Joint Source Control Strategy – issued by DEQ and EPA in December 2005[6] |
| LNAPL | Low density Non-Aqueous Phase Liquid |
| LWG | Lower Willamette Group |
| MOA | Memorandum of Agreement |
| MOU | Memorandum of Understanding |
| MS4 | Municipal Separate Storm Sewer System |
| N/A | Not Applicable – used in Table 1 to indicate that the particular pathway does not exist at the site |
| NAPL | Non-Aqueous Phase Liquid |
| N&E | Nature and extent of the contamination at the site |
| NFA | No Further Action – a DEQ notice to a Responsible Party declaring that no further cleanup action is needed at the site |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priority List |
| OF | Outfall |
| p&t | Pump & Treat system – a Source Control Measure used to remove or contain and treat contaminated groundwater |
| PA | Preliminary Assessment – an early assessment stage of the cleanup process |
| PCB | Polychlorinated Biphenyls |
| PH | Portland Harbor |

[6] The JSCS is available on DEQ's web site at (http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/index.htm); click "Joint Source Control Strategy" on the left side bar.

| | |
|---|---|
| PH Agr | Portland Harbor Agreement – a formal agreement to conduct the remedial investigation and source control work |
| PH Ltr Agr | Portland Harbor Letter Agreement – an initial agreement to conduct limited investigation and cleanup activities and cover DEQ's oversight costs |
| PM | DEQ Project Manager leading cleanup work at the site |
| PPA | Prospective Purchaser Agreement – a tool for negotiating and agreeing upon potential liability for prospective purchasers of sites |
| PRP | Potentially Responsible Party. |
| ROD | Record of Decision |
| RD/RA | Remedial Design/Remedial Action – a phase of the cleanup process that occurs after the Record of Decision; designing and implementing the cleanup action |
| RI | Remedial Investigation – a phase of the cleanup process; investigating the nature and extent of contamination and understanding the potential risks posed by the contaminants to human health and the environment |
| RI/FS | Remedial Investigation/Feasibility Study |
| RM | River Mile |
| RP | Responsible Party |
| SC | Source Control |
| SCD | Source Control Decision |
| SCE | Source Control Evaluation |
| SCM | Source Control Measure |
| SIC | Schnitzer Investment Corp |
| SLV | Screening Level Value – a contaminant-specific level established in the JSCS (see JSCS Table 3.1) that is used to screen upland pathways and sites to identify potential threats to human health and the environment. |
| SOW | Scope of Work |
| SVE | Soil Vapor Extraction – a Source Control Measure used to remove volatile contaminants from subsurface soils; often combined with soil vapor treatment |
| TBD | To Be Determined |
| TCA | Trichloroethane |
| UIC | Underground Injection Control system |
| UST | Underground Storage Tank |
| VCP | Voluntary Cleanup Program |
| VOCs | Volatile Organic Compounds |
| WO | Waiting on |
| XPA | Expanded Preliminary Assessment – an early assessment stage of the cleanup process |

## 9.2 Contact information for DEQ Project Managers

| | | |
|---|---|---|
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# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

Note: Sites in this table are listed in order of their position alongside the Willamette River, or the "River Mile" associated with their location; the River Mile indicates distance from the Willamette River's confluence with the Columbia River.

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Overland Transport/Sheet Flow | N/A | NA | N/A | N/A | none | Low | N/A | N/A | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Bank Erosion | N/A | NA | N/A | N/A | none | | N/A | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Groundwater | Completed | NA | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 6/07 - EPA comments received 6/07 | | | | | | | | | | |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Stormwater | Completed | NA | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 6/07 - EPA comments received 6/07 | | | | | | | | | | |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 5 | 1686 | 1.5 E | 15540, 15550, & 15560 N Lombard | Tom Gainer | IGA | NFA | 02/19/09 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | no pathway; berm prevents overland transport/sheet flow | None | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Bank Erosion | Completed | | SCE is part of June 06 Alternatives Evaluation | Pathway is complete | High | | Deferred to Alternatives Evaluation | Original permit for shoreline action withdrawn based on Agency input. New permit with modified design to be submitted once additional shoreline sampling results evaluated. | | Evaluating path forward considering EPA/Natural Resource Trustee comments | | | | | | |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Groundwater (UST & AST AOCs) | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 10/2004; no comments received | | Soil removal completed at time of spill, prior to SCE | | | | | | SCE submitted to EPA 10/2004; no comments received | Operation and Maintenance requirements |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Groundwater (other AOCs) | Ongoing | DEQ SCE memo for EPA in preperation | 1st qtr 2011 | Pathway is complete | Medium | High | Pending completion of SCE | | | | | | | | | | |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Stormwater | Completed | | | Pathway is complete | High | | SCE is part of Alternatives Evaluation | alternative evaluation completed 2006 | End of pipe treatment | EPA agreed with proposed approach 9/14/06 | Full-scale pilot operating 10/07; end of pipe treatment expanded to central outfall Fall 2008; loading evaluation approved 2010 however, evaluating appropriate treatment chemical | | pilot testing completed, loading evaluation approved 2010, evaluating treatment chemical | | | |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Oregon Steel Mills | 141 | 2.2 E | 14400 N Rivergate | Jennifer Sutter | PH Agr for RI/SCM (6/00) | RI | 08/03/10 | Other - current NPDES permitted discharge | Completed | N/A | Addressed under NPDES permit | Pathway addressed via NPDES permit | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Saulve Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Saulve Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Bank Erosion | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Saulve Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Groundwater | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Saulve Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Stormwater | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Saulve Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Overwater Activities | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Esco Landfill Saulve Island | 4409 | 2.6 | 14444 NW Gillihan Loop | No PM Assigned | Industrial landfill disposal permit | Solid Waste Landfill Permit | 08/20/08 | Other | N/A | N/A | N/A | N/A | none | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Groundwater | Completed | None | N/A | Incomplete pathway | none | Medium | Anticipate providing SCE to EPA 2nd Qtr 2011 | | | | | | | | | |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Stormwater | Completed | | | Complete | Medium | | Anticipate providing SCE to EPA 2nd Qtr 2011 | | Cleaned stormsewer lines, proposed line repair options and post SCM monitoring plan. | | Stormwater system repair completed 2nd quarter 2010 | | Performance monitoring ongoing - anticipate providing EPA summary of remedy effectiveness 2nd Qtr 2011 | | | |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Consolidated Metco | 3295 | 2.8 E | 3940 N Rivergate | Mike Romero | PH Letter Agr for XPA | XPA | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | | |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | | |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | | |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Harborton | 2353 | 3.2 W | NW Marina Way | Matt McClincy | PH Agr for RI/SCM (6/00) | Completed SCD | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Overland Transport/Sheet Flow | Completed | None | First Quarter 2011 | Incomplete pathway | none | Medium | SCE will be submitted to EPA when stormwater assessment is complete | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Bank Erosion | Completed | None | First Quarter 2011 | Insignificant pathway; no actions recommended | p Low | | SCE will be submitted to EPA when stormwater assessment is complete | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Groundwater (Main Tank Farm Petroleum Plume) | Completed | None | First Quarter 2011 | Pathway is complete, GW Monitoring ongoing | Medium | | SCE will be submitted to EPA when stormwater assessment is complete | Work plan for soil removal in tank farm area in review | Impacted source area soil to be removed | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Groundwater (Bell Terminal Petroleum Plume) | Completed | None | First Quarter 2011 | Pathway is incomplete, GW Monitoring ongoing | p Low | | SCE will be submitted to EPA when stormwater assessment is complete | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Groundwater (Penta Plume) | Completed | | | SCMs retard penta migration and prevent penta discharge to private stormwater outfall | Medium | | SCE submitted to EPA. | alternatives evaluation completed 2004 | Source area pump & treat; insitu chemical oxidation (ISCO); gw to sw intercept pump & treat, plans for additional source area soil removal in development | SCD for SCM selection submitted to EPA May 2004; partners responded with questions | Ongoing pump & treat provides containment; 4 rounds of ISCO conducted through Spring '07 | Over 45 million gallons of groundwater pumped and treated, ISCO has treated groundwater insitu (no estimate of volume) | Ongoing groundwater pump & treat; evaluation of ISCO effectiveness TBD - bioremediation methods being tested | | | Ongoing maintenance and monitoring of pump & treat system |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Stormwater | Ongoing | Complete stormwater characterization | 4th Quarter 2010 | Pathway is complete | p Low | | Waiting on SCE phase to be completed | | | | | | | | | |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (no spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Time Oil | 170 | 3.4 E | 10350 Time Oil Rd | Ken Thiessen | Pre-PH Agr. (9/96) | BRA | 07/06/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tarnow | IGA for RI SCM (8/03) | RI | 08/05/10 | Groundwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tamow | IGA for RI SCM (8/03) | RI | 08/05/10 | Stormwater | Ongoing | Complete outfall basin characterizations, site-specifc investigations and source control. | Ongoing (corresponding to Portland Harbor ROD) | Pathway is complete; priority varies from basin to basin | to be determined | to be determined | Waiting on SCE to be completed. | | Final SCM TBD. Ongoing SW inspections, investigations of illicit discharges, identification of potential contributors to City system. Site-specific catch basin cleanouts, line cleaning, and implementation of BMPs | | | | | | | |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tamow | IGA for RI SCM (8/03) | RI | 08/05/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| City of Portland Outfalls | various | 3.5 to 9.2 | various | Karen Tamow | IGA for RI SCM (8/03) | RI | 08/05/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed in 2000 and did not provide comments | | No SCM needed | | | | | | | |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Groundwater | Completed | 10/2001 DEQ concluded not a current source. 5/2002 DEQ requesteded additional groundwater work based on new PH strategies. 8/2002 GP declined. DEQ considers groundwater pathway not fully characterized, but not a high priority. | | | Low | | EPA reviewed in 2000 and did not provide comments | NA | No SCM needed | NA | NA | NA | NA | NA | NA | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Stormwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Georgia Pacific Linnton | 2370 | 3.5 W | 12222 NW Marina | Tom Gainer | PH Letter Agr for XPA (10/99) | XPA | 06/12/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA (10/04); no comments | | No SCM needed | | | | | | SCM submitted to EPA ( 10/04). No comments. | |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Stormwater | Completed | | | Currently insignificant pathway; stormwater pipe suspected past migration pathway | Low | | SCE submitted to EPA (10/04); no comments | | Completed FS proposes removal of contaminated off-site soil potentially available for transport to river. | SCM submitted to EPA (10/04). No comments | 6,400 tons of contaminated soil removed in 2006 and site capped with 1.5 feet of clean fill in 2007 | | | | SCM submitted to EPA (10/04) No comments. | |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| ACF Industries | 794 | 3.6 W | 12160 NW St Helens | Dan Hafley | Unilateral Order (8/00) | NFA | 11/28/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | Complete | | | | | | | | | |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | Complete | | | | | | | | | |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Groundwater | Completed | | | Currently no complete pathway; groundwater monitoring to confirm plume stability | Low | | Complete | | | | | | | | | Annual groundwater monitoring (conditional NFA) |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | NFA | 03/02/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | Complete | | | | | | | | | |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | N/A | 03/02/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Linnton Oil Fire Training Grounds | 1189 | 3.6 W | NW Marina Way | Tom Gainer | IGA | N/A | 03/02/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI | 07/06/10 | Overland Transport/Sheet Flow | Ongoing | To be evaluated as part of stormwater evaluation | Estimated Fourth Quarter 2011 | Pending | p Low | High | | | | | | | | | | |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI | 07/06/10 | Bank Erosion | Ongoing | Additional sampling needed | Estimated Fourth Quarter 2011 | Pending | p Low | | | | | | | | | | | |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI/SCE | 07/06/10 | Stormwater | Ongoing | Complete stormwater system characterization | Estimated Fourth Quarter 2011 | Pending | p Low | | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI/SCE | 07/06/10 | Overwater Activities | Ongoing | N/A | N/A | NA | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Premier Edible Oils | 2013 | 3.6 E | 10400 N Burgard | Ken Thiessen | PH Agr for RI/SCM (7/01) | RI/SCE | 07/06/10 | Groundwater and LNAPL to surface water at site shoreline | Completed | None | N/A adequate documentation exists | Complete | High | | | SCM Evaluation (FFS) in preparation | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | SCE submitted to EPA (3/06); DEQ responds 4/06 | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | N/A | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA (3/06); DEQ responds 4/06 | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA (3/06); DEQ responds 4/06 | | | | | | | | | |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| RoMar Realty of Oregon | 2437 | 3.6 E | 9333 N Time Oil | Tom Gainer | PH Ltr Agr for XPA | NFA | 06/12/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA Reviewed and commented 10/20/02 | | No SCM needed | | | | | | | |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA Reviewed and commented 10/20/02 | | No SCM needed | | | | | | | |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Jefferson Smurfit | 2371 | 3.7 E | 9930 N Burgard | Matt McClincy | PH Letter Agr for XPA (12/00) | XPA | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | Review draft SCE | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | P Low | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Bank Erosion | Ongoing | Review draft SCE | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Groundwater | Ongoing | Review draft SCE | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Stormwater | Ongoing | Review draft SCE | 4th Qtr 2010 | Waiting on SCE to be completed | p Low | | Pending completion o f SCE | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Basis for determination that source control is needed | | | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| | | | | | | | | | | | | Pathway determination | Pathway priority level | Site priority level | | | | | | | | | | |
| Owens-Corning Fiberglass (Trumbull Asp) | 1036 | 3.8 W | 11444 NW St Helens | Shawn Rapp | PH Letter Agr for XPA (12/99) | XPA | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overland Transport/Sheet Flow | Ongoing | Investigation scope of work under review | TBD | Waiting on SCE to be completed | p High | pHigh | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Bank Erosion | Ongoing | Additional sampling needed | TBD | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Groundwater | Ongoing | Additional groundwater characterization | TBD | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Stormwater | Ongoing | Additional stormwater characterization | TBD | Waiting on SCE to be completed | p High | | Waiting on SCE completion | | | | | | | | | |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Burgard Industrial Park | 5324 | 3.8 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Other | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Groundwater | Ongoing | SCE report in revision | 4th Quarter 2011 | Not believed to be a complete pathway | none | p Med | Waiting on SCE to be completed | | | | | | | | | |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Stormwater | Ongoing | SCE report in revision | 4th Quarter 2011 | SW suspected migration pathway | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Pipe | 138 | 3.9 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (2/05) | RI | 07/29/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overland Transport/Sheet Flow | Ongoing | Additional sampling needed | 4th Quarter 2011 | Waiting on SCE to be completed | p High | | Waiting on SCE to be completed | | | | Asphalt berm constructed in summer 2009 along 925 feet of landward edge of Schnitzer dock to help prevent overland runoff to slip | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Bank Erosion | Ongoing | Additional sampling needed | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Groundwater | Ongoing | ongoing monitoring | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | p High | Waiting on SCE to be completed | | | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Stormwater | Ongoing | Ongoing monitoring - and engineering improvements including stormwater filtration and storage | 4th Quarter 2011 | Complete | p High | | Waiting on SCE to be completed | | Signicant stormwater system uptgrades in progress | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Overwater Activities | Not Started | To be determined | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Schnitzer Steel | 2355 | 4.0 E | 12005 N Burgard | Jim Orr | PH Agr for RI/SCM (3/00) | RI | 07/29/10 | Air Deposition | Not Started | To be determined | 4th Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/CSM (3/00) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Bank Erosion | Ongoing | To be determined | 1st qtr 2011 | Physical evalution of bank, sampling if possible 4th quarter 2010 | to be determined | | Waiting on SCE to be complete | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Groundwater | Ongoing | RP will conduct IRAM effectiveness evaluation and FFS for barrier wall installation | 1st qtr 2011 | LNAPL seeps on shoreline and dissolved petroleum likely discharging to river | p High | p High | Waiting on SCE to be complete | | Interim LNAPL removal and groundwater pump and treat system in operation, FFS for barrier wall is in developpment phase | | | | | | | |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Stormwater | Ongoing | Stormwater SCE received, DEQ review and approval need. | 3rd Qtr 2010 | to be determined | to be determined | | Waiting on SCE to be complete | | | | | | | | | |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kinder Morgan (Aka GATX) | 1096 | 4.2 W | 11400 NW St Helens | Mike Romero | PH Agr for RI/SCM (6/00) | RI | 06/30/10 | NPDES Permit for groundwater treatment discharge | Ongoing | GW treatment system & oil/water separator on NPDES - Evaluate existing data set | 3rd qtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be complete | | | | | | | | | |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Bank Erosion | Completed | SCM necessary; coordinate with T4 Early Action | Tied to T4 Early Action schedule | Pathway is complete | Low | | Tied to T4 Early Action schedule | Part of T-4 Early Action Process | Cap | Selected SCMs | Wheeler Bay SCMs 10-08 | Completion report submitted 9-09 | Wheeler Bay bank regraded and capped fall 2008 | 10-08 | EPA reviewed and commented. | periodic inspection and maintenance |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Groundwater | Completed | None | N/A | Preliminary determination that pathway is insignificant | p Low | | Waiting on results of stormwater remedy effectiveness monitoring | | | | | | | | | |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Stormwater | Completed | None | N/A | Complete | p Med | | Waiting on results of stormwater remedy effectiveness monitoring | | | | Stormwater BMPs and line cleanout implented - effectivness monitoring ongoing | | | | | |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 1 | 2356 | 4.3 E | 11040 N Lombard | Tom Gainer | PH Agr for RI/SCE | RI | 08/02/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Overland Transport/Sheet Flow | Completed | | | SCM addressed this potentially complete pathway | Low | Low | EPA reviewed and commented | | Independent removal of two small upland source areas and offsite disposal in 2002 | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | No SCM needed | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | No SCM needed | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | Ongoing Stormwater BMPs and monitoring | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Overwater Activities | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented | | No SCM needed | Received review 8/29/03 | | | | | Received review 8/29/03 | |
| Linnton Plywood | 2373 | 4.6 W | 10504 NW St Helens | Matt McClincy | PH Letter Agr for XPA (3/01) | NFA | 03/13/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | | N/A | | | | | | N/A | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A - see Bank Erosion and Stormwater pathways | N/A | N/A | none | Medium | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Bank Erosion | Completed | | | Pencil pitch observed and PAHs detected in river bank soils above PECs | Medium | | Spring 2009 | | Excavation and capping | Spring 2009 | | | Excavation and capping at 1 of 3 areas (fall 2009); remaining 2 areas to be implemented with Phase II Early Action | 1 of 3 areas completed 2009 | | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Groundwater | Completed | | | Complete pathway - remedy recommended and implemented | Medium | | EPA reviewed and commented, 2/2003 | | Bank excavation and backfill remedial action, NAPL recovery, monitoring | EPA reviewed and commented, 2/2003 | Bank excavation and backfill remedial action (BEBRA) 11/04 | 2,700 cubic yards of contaminated soil removed; 30.2 gallons NAPL recovered to date | NAPL recovery and monitoring ongoing | | | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Stormwater | Ongoing | Stormwater sampling ongoing | 4th Quarter 2011 | Complete pathway; BMPs in place | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Overwater Activities | N/A | N/A - Historic releases to be addressed by the in-water T4 Early Action | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Terminal 4 Slip 3 | 272 | 4.6 E | 10400 Lombard | Tom Gainer | Judgment for RD/RA (4/04) | RD/RA | 08/02/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR St Johns Tank Farm | 2017 | 4.5 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Basis for determination that source control is needed | | | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| | | | | | | | | | | | | Pathway determination | Pathway priority level | Site priority level | | | | | | | | | | |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA April 2004, no comments received | | No SCM needed | | | | | | | |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA April 2004, no comments received | | No SCM needed | | | | | | | |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR St Johns Tank Farm | 2017 | 4.6 E | 6908 N Roberts | Jim Anderson | Pre-PH VCP Letter Agr | NFA | 03/07/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Bank Erosion | N/A | No Bank -concrete sea wall | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Groundwater | Completed | | | Free product & dissolved phase potentially reaching river | High | | EPA reviewed and commented 2007 | alternatives evaluation completed 3/2007 for on site GW | New sheetpile barrier wall with hydraulic control and GW pump & treat system | EPA reviewed 3/2007 | Hydraulic Control system installed 1/2005, new sheetpile seawall 11/2007 | 700 linear feet of plume controlled at riverbank | | 11/08 | | Recontamination evaluation due 4th quarter 2010 |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Stormwater | Ongoing | Sampling stormwater system | 4th Quarter 2010 | Waiting on SCE to be completed | to be determind | | Waiting on SCE to be completed. | | | | | | | | | |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BP Terminal 22T (ARCO) | 1528 | 4.8W | 9930 NW St Helens | Tom Gainer | PH Agr for RI/SCM (6/00) | RI | 08/02/10 | Near shore sediment | N/A | N/A | N/A | N/A | none | | N/A | alternatives evaluation for near-shore sediment completed 3/07 | Revetment and near-shore sediment removal and off-site disposal | EPA reviewed 3/07 | Sediment removal complete 11/08 | 16,300 CY sediment | Final grading and planting summer 2009 | 11/08 | TBD | Recontamination evaluation |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 6/04 | | No SCM needed | | | | | | | |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 6/04 | | No SCM needed | | | | | | | |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 6/04 | | No SCM needed | | | | | | | |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Auto Storage Area (ASA) | 172 | 5.0 E | 10400 Lombard | Tom Gainer | Pre-PH DEQ/Port IGA (11/00) | NFA | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Groundwater | Completed | | | Groundwater is a complete pathway | High | | DEQ issued a ROD in 1997 requiring groundwater treatment | DEQ issued a ROD in 1997 requiring groundwater treatment | Operating air sparge & SVE system. Expansion of air sparge system (1/2005) - Additional GW hydraulic control planned for "hydraulic gap" area in 4th quarter 2010 | Possibility only if remedy is shown not to be protective and altenative remedial action is proposed | Operating air sparge & SVE system. Expansion of air sparge system (1/2005) | | Additional SCMs in hydraulic gap at downstream end of site planned for 4th quarter 2010 | | | Sytem inspection , opertion, and effectiveness monitoring oncing |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Stormwater | Pending EPA Review | Current facility owner NuStar will conduct SCE for bulk plant, ExxonMobil will conduct SCE at their Lube Plant | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Exxon Mobil | 137 | 5.1 W | 9420 NW St Helens | Tom Gainer | VCP Agr for Remedial Action (5/02) | RD/RA | 08/02/10 | Other | Not Started | N/A | N/A | N/A | to be determined | | | | | | | | | | | |
| Olympic Pipeline Portland Facility within ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 02/19/09 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Olympic Pipeline Portland Facility within ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Olympic Pipeline Portland Facility within ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE completion | | Conducted soil removal following petroleum spill in mid 1990s | | | | | | | |
| Olympic Pipeline Portland Facility within ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Stormwater | Ongoing | Dependent upon groundwater conditions | 4th Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | | | | | | | | |
| Olympic Pipeline Portland Facility within ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Olympic Pipeline Portland Facility within ExxonMobil | 3342 | 5.2W | 9420 NW St Helens | Tom Gainer | ICP | XPA | 08/02/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Overland Transport/Sheet Flow | Not Started | Source Control Evaluation Assessment SOW under review implimentation fall 2010 | 2nd Quarter 2011 | Pathway derermination | to be determined | p Med | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Bank Erosion | Not Started | Source Control Evaluation Assessment SOW under review | 2nd Quarter 2011 | Pathway is complete | p Med | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Groundwater | Not Started | Source Control Evaluation Assessment SOW under review | 2nd Quarter 2011 | Pathway is complete | p Med | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Stormwater | Not Started | Source Control Evaluation Assessment SOW under review implimentation fall 2010 | 2nd Quarter 2011 | to be determined | to be determined | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was ECSI #1989) | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Overwater Activities | Not Started | Source Control Evaluation Assessment SOW under review | 2nd Quarter 2011 | to be determined | to be determined | | Waiting on SCE completion March 2011 | | | | | | | | | |
| Shore Terminals (aka NuStar and Valero was | 5130 | 5.4W | 9400 NW St Helens Rd | Jim Orr | VCP Agreement for Stormwater Assessment & Source Control | SCE | 07/29/10 | Loading Rack investigation | Ongoing | Characterization of releases from loading rack | to be determined | to be determined | to be determined | | Waiting on SCE completion | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Bank Erosion | Ongoing | Evaluated as part of SCE | 4th Quarter 2011 | Not believed to be a complete pathway | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Groundwater | Ongoing | SCE Report Under Development | 4th Quarter 2011 | Pathway is complete | pMed | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Stormwater | SCE Report is being Produced. All data collected | Catch basin sediment sampling/screening for site COI plus PCBs and phthalates, and follow-up storm water sampling per JSCS. | 4th Quarter 2011 | to be determined | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills will be reported to OERS) | none | | Waiting on SCE to be completed | | | | | | | | | |
| Brix Maritime (aka Foss) | 2364 | 5.5 W | 9030 NW St Helens | Jim Orr | PH Agr for RI/SCM (5/02) | RI/SCE | 07/29/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Overland Transport/Sheet Flow | Completed | | | overland soil transport suspected migration pathway | Low | p Med | EPA reviewed and commented 2004 | alternatives evaluation completed in 2004 | removal of 278 cubic yards of sandblast grit and soil; DEQ issues SCD in 4/2004 | EPA reviewed and approved 2004 | 2007 | 278 CY soil | Port of Portland condemed property. Port conducted soil removal as prescribed in ROD 5/07 | 5/07 | EPA commented 5/08 | None |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Bank Erosion | Not Started | | | Deferred investigation of beach to Mar Com South Parcel | p Med | | | | Deferred investigation of beach to Mar Com South Parcel | | | | | | | |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 2004 | | N/A | | | | | | | |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 2004 | | N/A | | | | | | | |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mar Com Marine (N Parcel) | 4797 | 5.6 E | 8790 N Bradford | Mike Romero | PH Agr for RI/SCM (11/01) | NFA | 03/06/09 | Other | N/A | | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Overland Transport/Sheet Flow | Completed | | | contaminated over screening criteria in soil potentially susceptible to runoff | Low | | SCE submitted to EPA 9/30/04. No comments received. | alternatives evaluation completed 2004 | Dig and haul soil contamination; capping with clean fill and/or building | SCM submitted to EPA 9/2004, no comments received | Soil removed 08/05, selected site areas capped with building and/or clean fill | 1,150 cubic yards of soil removed (estimated); report pending | | 11/05 | SCD submitted to EPA July 18, 2007. | Institutional control for cap and building will be required. |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | SCE submitted to EPA 9/30/04. No comments received. | alternatives evaluation completed 2004 | No SCM needed | | | | | | SCD submitted to EPA July 18, 2007. | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | SCE submitted to EPA 9/30/04. No comments received. | alternatives evaluation completed 2004 | No SCM needed | | | | | | *SCD submitted to EPA July 18, 2007. | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Stormwater | completed | | | Insignificant pathway; no actions recommended | Low | | N/A | N/A | N/A | N/A | N/A | N/A | Storm drain system was installed in May 2006; 3 storm water sampling events complete. 1 more pending. | | *SCD submitted to EPA July 18, 2007. | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Marine Finance, AKA Advanced American | 2352 | 5.8 W | 8444 NW St Helens | Mark Pugh | PPA | NFA | 06/16/08 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Overland Transport/Sheet Flow | Ongoing | Reviewing revised SCE | Pending review | Complete | p High | p High | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Bank Erosion | Ongoing | Reviewing revised SCE | Pending review | TBD | p Med | | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Burgard | Mike Romero | PH Agr | RI | 06/30/10 | Groundwater | Ongoing | Reviewing revised SCE | Pending review | TBD | p Med | | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Stormwater | Ongoing | Reviewing revised SCE | Pending review | TBD | to be determined | | To be determined | | | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Overwater Activities | N/A | No current overwater activities, only historic | N/A | N/A | N/A | | N/A | | Floating dry dock sold in 2004, and removed from site | | | | | | | |
| Mar Com (S Parcel) | 2350 | 5.8 E | 8790 N Bradford | Mike Romero | PH Agr | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Overland Transport/Sheet Flow | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | no alternatives evaluation needed | no alternatives evaluation needed | no alternatives evaluation needed | no alternatives evaluation needed |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Bank Erosion | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Groundwater | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | Low | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Stormwater | Completed | none | Complete | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Overwater Activities | Completed | N/A | N/A | No known current sources (spills will be reported to OERS) | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| BES Water Lab | 2452 | 6.0E | 6543 N Burlington | Mark Pugh | IGA | NFA | 05/25/10 | Other | Completed | N/A | N/A | No known current sources (spills will be reported to OERS) | Low | | EPA has reviewed and commented on SCD | no alternatives evaluation needed | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Overland Transport/Sheet Flow | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Bank Erosion | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Groundwater | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Stormwater | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Overwater Activities | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| US Moorings | 1641 | 6.2W | 8010 NW St. Helens Rd. | Mark Ader EPA | Federal RCRA Order | FS | 08/02/10 | Other | Completed | | | | | | EPA preparing proposed Plan October 2010 | | | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | See Stormwater Pathway | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | Work plan to sample erodible surface soils approved; results pending | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Bank Erosion | Ongoing | Bank characterization underway | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | RP removed black sand from beach and bank in 10/01. Residual contamination exists on beach, deferred to in-water RI. Bank was replaced with clean fill. | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Groundwater | Ongoing | None | 2nd Quarter 2011 | Insignificant pathway; no actions recommended | p Low | p Low | Waiting on SCE completion | | | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Stormwater | Ongoing | Storm water sampling per JSCS | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | RP currently evaluating possible stormwater piping and seep sources | | | | | | | |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crawford Street Corp | 2363 | 6.3 E | 84248 N Crawford | Shawn Rapp | PH Letter Agr for XPA (11/99) | XPA | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 10/30/10 | Overland Transport/Sheet Flow | Completed | None | 4th Quarter 2010 | Pathway potentially complete | p Low | | N/A | Potential runoff in eastern corner of site will be controlled by future bank remedial work which will be EPA lead. | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 07/30/10 | Bank Erosion | Completed | N/A, NW Natural moving forward with source control | N/A, NW Natural submitted SCM evaluation (FFS) | Pathway is complete | High | | N/A | SCM Evaluation (FFS) received 11/07, DEQ review complete (3/08) | Depending on location, riverbank SCMs to include bank regrading, repair, removal, and replacement combined with shallow groundwater controls. | EPA comments received 2/08 | | | NW Natural, EPA, and DEQ agreed riverbank remediation will take place concurrently with the construction phase of the NW Natural & Siltronic in-water sediment action, both to be overseen by EPA. AOC for in-water work finalized 9/09. | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Basis for determination that source control is needed | | | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| | | | | | | | | | | | | Pathway determination | Pathway priority level | Site priority level | | | | | | | | | | |
| NW Natural "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 07/30/10 | Groundwater | Completed | N/A, NW Natural submitted SCM Evaluation (FFS) | N/A, NW Natural submitted SCM Evaluation | Pathway is complete | High | High | N/A | SCM Evaluation (FFS) submitted 11/07, DEQ review complete 3/08 | Vertical barrier in most contaminated shoreline area (Segment 1), hydraulic containment along site shoreline (segments 1 and 2), and DNAPL removal beneath former effluent ponds. | EPA comments received 2/08 | Preliminary design received (6/08); DEQ review complete (8/08). Interim Design received (11/09); DEQ review complete (3/10). DEQ conditionally approved Segment 2 design. Due to DNAPL concerns and timing of implementation DEQ deferred source control along "Gasco" portion of Segment 1 to uplands FS. | | NW Natural formally disputing DEQ Segment 1 source control decision. | | | |
| NW Natural "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 07/30/10 | Stormwater | Ongoing | Complete stormwater & catch basin sampling report for JSCS screening purposes. | 4th Quarter 2010 | Pathway is complete | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |
| NW Natural "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 07/30/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Gasco" Site | 84 | 6.4 W | 7900 NW St Helens | Dana Bayuk | Pre-PH VCP Agr for RI/FS (8/94) amended 7/06 | RI | 07/30/10 | Other - Koppers NPDES Permit | Ongoing | Complete catch basin sediment sampling report for JSCS screening purposes. | 4th Quarter 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | Part of NW Natural "Gasco" Site; see ESCI #84 | | 07/30/10 | Overland Transport/Sheet Flow | | | | | | to be determined | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Bank Erosion | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Groundwater | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Stormwater | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | | 07/30/10 | Overwater Activities | | | | | | | | | | | | | | | | |
| Koppers Inc | 2348 | 6.5 W | 7540 NW St. Helens Rd. | Dana Bayuk | | Ongoing | 07/30/10 | Other - Koppers NPDES Permit | Ongoing | Complete catch basin sediment sampling report for JSCS screening purposes. | 4th Quarter 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Bank Erosion | Ongoing | Complete characterization of MGP waste/contamination along shoreline per NW Natural's "Siltronic MGP Site" RI work plan approved 10/07. | to be determined | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Groundwater | Siltronic portion of Segment 1 complete, Segment 3 ongoing | MGP waste and contamination being investigated along shoreline upstream of Segment 1 (i.e., Segment 3) per MGP RI work plan. Review draft pf Segment 3 SCE submitted 2/09. | 4th Quarter 2010 (Segment 3 projected) | Pathway is complete | High | | Waiting on SCE to be completed | SCM Evaluation (FFS) received 11/07, including Siltronic portion of Segment 1; DEQ review complete (3/08) | Hydraulic containment of Siltronic portion of Segment 1 | EPA comments received 2/08 | Preliminary design received (6/08); DEQ review complete (8/08). Interim design received (11/09); DEQ review complete (3/10). DEQ conditionally approved NW Natural's interim design for two extraction wells along Siltronic portion of Segment 1. | | NW Natural formally disputing DEQ Segment 1 source control decision for "Gasco" site portion of Segment 1. | | | |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Stormwater | Ongoing | Evaluate MGP waste/contamination in shallow soils per MGP RI work plan and combine with Siltronics stormwater system data. | 4th Quarter 2010 | Pathway is complete | to be determined | | Waiting on SCE to be completed | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| NW Natural - "Siltronic MGP" Site | 183 | 6.6 W | 7700 NW Front | Dana Bayuk | Joint NW Natural/Siltronic Order (10/00) & Amendment #1 (7/06) to Pre-PH VCP Agr for RI/FS (8/94) | RI | 08/02/10 | Other - Doane Creek | Ongoing | Investigate COI contributions to Doane Creek & City's OF-22C per Siltronic MGP Site RI work plan (Summer 2010) | TBD pending results of bank soil, stream sediment, and surface water sampling proposed in MGP RI | Pathway is complete | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A, subsurface releases from UST system | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Bank Erosion | N/A | N/A, subsurface releases from UST system | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Groundwater | Completed | N/A, Siltronic moving forward with source control, SCM Evaluation (FFS) submitted 10/07 | N/A, Siltronic submitted SCM Evaluation | Pathway is complete | N/A, Siltronic submitted SCM Evaluation | | | SCM Evaluation (FFS) complete (12/07), DEQ review complete (2/08) | Enhanced in-situ bioremediation (EIB) in source area of TCE release, hydraulic containment in coordination with NW Natural along shoreline | EPA comments communicated to Siltronic 5/08 | Final EIB work plan received (10/08), approved by DEQ (12/08); EIB performance monitoring well network established (2/09), EIB injections complete (7/09) | | Groundwater monitoring within and downgradient of source area (i.e., former UST system) to assess EIB performance and effectiveness is ongoing. | | | Contingency measures(hydraulic control/containment) may be implemented based on downgradient groundwater performance monitoring data and trends. |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Stormwater | Ongoing | Complete storm water and catch basin report per JSCS | 4th Quarter 2010 | Pathway is complete | to be determined | High | Waiting on SCE to be completed | | | | | | | | | |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Siltronic Corp. TCE Investigation | 183 | 6.5 W | 7200 NW Front | Dana Bayuk | VCP Order (2/04) & Joint NW Natural/Siltronic Order (10/00) | RI | 08/02/10 | Other - Sediment contamination (Area 2) offshore of northern facility outfall (Outfall 001) | N/A | N/A | N/A | N/A | | | N/A | | | | | Area 2 sediment contamination will be included in NW Natural/Siltronic in-water sediment action overseen by EPA. AOC for in-water work finalized 9/09. | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Overland Transport/Sheet Flow | Completed | None | Waiting on completion of riverbank work | Waiting on SCE WP to be completed | p Low | p Low | Waiting on SCE to be completed | | | | Removal of contaminated soil completed June 2008 | 625 cubic yards | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Bank Erosion | Ongoing | Additional sampling planned Fourth quarter 2010 | TBD | TBD | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Groundwater | Ongoing | Additional sampling planned Fourth quarter 2010 | TBD | TBD | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Stormwater | N/A | No site-related stormwater outfalls | NA | Insignificant pathway; no actions recommended | none | | NA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willamette Cove | 2066 | 6.8 E | Foot of N Edgewater | Ken Thiessen | PH Agr for RI/SCM (11/00) | RI | 07/06/10 | Overwater Activities | N/A | N/A | N/A | No current source; likely historic sources | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Groundwater (plume discharge to river) | Ongoing | SCE Report and Alternatives Analysis | SCE Report in revision - 9/2010 | Pathway is complete | p High | | Waiting on SCE to be completed | Interim measure pilot study ongoing; | | | | | | | | |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Groundwater (plume discharge to City Outfall 22B) | Ongoing | Phased dry weather flow investigation completed | Part of SCE 9/2010 | Pathway is complete | p High | | Waiting on SCE to be completed | Interim measures implemented | Interim SCMs to stormwater line to prevent gw infiltration, effectiveness monitoring ongoing | | Lining of entire 22B system in progress, early measures not effective, expected to be complete 3rd quarter 2010 | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Stormwater | Ongoing | Complete SCE write up | Part of SCE 9/2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Other - historical drainage ditch | Ongoing | Complete remedial investigation | Part of SCE 9/2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Rhone Poulenc | 155 | 7.0 W | 6200 NW St Helens | Dave Lacey | Pre-PH Order for RI (1999) | RI | 06/21/10 | Other - current NPDES permitted discharge | Ongoing | Data collection for PH COI | Part of SCE 9/2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Overland Transport/Sheet Flow | Completed | | | Pathway is complete | High | | Complete | | | | | | | | | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Bank Erosion | Completed | | | Pathway is complete | High | | Complete | | | | | | | | | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Groundwater | Completed | | | Pathway is complete | High | | Complete | | contaminated soil removal, sheet-pile barrier wall, sediment cap, riparian soil cap, upland soil cap, creosote extraction | | all SCMs have been implemented | 8,200 gallons of creosote recovered from groundwater, 33,000 tons of contaminated soil and debris removed, 23 acres of contaminated sediment capped, 8 acres of contaminated bank soil capped, 35 acres of contaminated upland soil capped | | | EPA reviewed and commented. | periodic inspection and maintenance, effectiveness monitoring, site use restrictions |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Stormwater | Completed | | | Pathway is complete | High | High | Complete | | | | | | | | EPA reviewed and commented. | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Overwater Activities | Completed | | | Pathway is complete | High | | Complete | | | | | | | | EPA reviewed and commented. | |
| McCormick & Baxter | 74 | 7.0E | 6900 N Edgewater Street | Scott Manzano | Superfund agreement with EPA | remedy implemented | 03/09/06 | Other | N/A | | | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater (Chlorobenzene/DDT Plume) | Completed | | Completed April 07 | Pathway is complete | High | | EPA May 07 Completed | Draft focused feasibility study (ffs) for proposed hydraulic containment wall/system submitted May 08. Response to EPA/DEQ comments received Sept. 2008. | 1,800 foot top of bank slurry wall, groundwater pump and treat system recommended. | Submitted for EPA review February 24, 2009 | Interim SCMs include AS/SVE system, initiated in-situ chem-ox treatment | | Groundwater containment system in design scheduled to be operational Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater (Hexavalent Chromium Plume) | Completed | | Completed April 07 | Pathway is complete | High | | EPA May 07 Completed | Draft focused feasibility study (ffs) for proposed hydraulic containment wall/system submitted May 08. Response to EPA/DEQ comments received Sept. 2008. | 1,800 foot top of bank slurry wall, groundwater pump and treat system recommended. | Submitted for EPA review February 24, 2009 | Interim SCMs include in-situ calcium polysulfide treatment | | Groundwater containment system in design scheduled to be operational Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater (Perchlorate Plume) | Completed | | Completed April 07 | Pathway is complete | High | | EPA May 07 Completed | Draft focused feasibility study (ffs) for proposed hydraulic containment wall/system submitted May 08. Response to EPA/DEQ comments received Sept. 2008. | 1,800 foot top of bank slurry wall, groundwater pump and treat system recommended. | Submitted for EPA review February 24, 2009 | Bench scale treatability study completed April 2008 | | Groundwater containment system in design scheduled to be operational Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Groundwater Lots 1, 2 and northern portion of Lot 3 | Ongoing | Rhone Poulenc SCE | 4th Quarter 2010 | Pathway is complete | p High | | | | | | | | | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Overland Transport/Sheet Flow | Ongoing | Part of Stormwater FFS | DEQ currently reviewing | Waiting on SCE to be completed | to be determined | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Bank Erosion | Completed | | | River Bank soil contaminant levels exceed action levels | High | | Anticipate integrating with EPA in-water action | Review of riverbank remedial alternatives in progress | Timing of SCM to be coordinated with EPA Early Action | | None | | | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Stormwater | Completed | | | Contaminants in stormwater exceed screening values (AWQC) | High | | | | DEQ Water Quality Mutal Agreement and Order signed for new stormwater collection and treatment system | | Interim SCMs include BMPs, surface soil removals and surface soil caps | | Abandon existing system, update temporary caps to limit stormwater transport, construct new stormwater collection and treatment system by Jan 2012 | | | |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arkema | 398 | 7.2 W | 6400 NW Front | Matt McClincy | Pre-PH VCP Formal Agr for RI/FS (9/98) | FS | 08/03/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Groundwater | Ongoing | TBD | TBD | Waiting on SCE to be completed | to be determined | p Med | Waiting on SCE completion | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Stormwater | Ongoing | Stormwater Assessment | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Air Liquide | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Air Liquide | 3342 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Letter Agreement 1/09 | XPA | 06/21/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Groundwater | Ongoing | TBD | TBD | Waiting on SCE to be completed | to be determined | p Med | Waiting on SCE completion | | | | | | | | | |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Stormwater | Ongoing | Stormwater Assessment | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE completion | | | | | | | | | |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Metro Central Transfer Station | 1398 | 7.2 W | 6161 NW 61 Ave | Dave Lacey | Letter Agreement 1/10 | XPA | 06/21/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Overland Transport/Sheet Flow | Not Started | TBD | No current schedule. | N/A | to be determined | | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Bank Erosion | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Groundwater | Not Started | TBD | No current schedule. | TBD | p Med | p Med | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Stormwater | Not Started | TBD | No current schedule. | TBD | p Med | | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Schnitzer Investment Doane Lake | 395 | 7.2 W | 6529 NW Front Ave. | Dave Lacey | Agreement negotiations ongoing | XPA | 06/21/10 | Other | Not Started | TBD | No current schedule. | TBD | to be detennined | | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Overland Transport/Sheet Flow | Ongoing | Finish characterization by First Quarter 2011 | TBD | TBD | p Low | p Med | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Bank Erosion | Ongoing | Finish characterization by First Quarter 2011 | TBD | TBD | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Groundwater | Ongoing | Finish characterization by First Quarter 2011 | TBD | TBD | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Stormwater | Ongoing | Follow up stormwater system characterization by First Quarter 2011 | TBD | Complete | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GS Roofing | 117 | 7.5 W | 6350 NW Front | Ken Thiessen | VCP - PH Agr | RI | 07/06/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Overland Transport/Sheet Flow | Completed | | | | Medium based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Bank Erosion | Completed | | | | Medium based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Groundwater | Completed | | | | TBD based on DEQ 2004 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Stormwater | Completed | | | | Medium based on DEQ 2004 | Medium | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Overwater Activities | Completed | | | | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Triangle Park (N PDX Yard) | 277 | 7.5 E | 5828 N Van Houten | Mark Ader EPA | Federal PPA 2006 | EE/CA | 08/02/10 | Other - Petroleum pipeline enters at south end of site from beneath the river | Completed | | | | Low based on DEQ 2304 | | EPA reviewed & commented on DEQ's 2004 SCD | EPA EE/CA planned for 4th Quarter 2010 | | | | | | | | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA issued groundwater NFA based upon risk assessment | | No SCM needed | | | | | | EPA lead | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Groundwater/ City Storm Sewer | Completed | | | Pathway has been eliminated | none | | EPA lead | | | | | | | | | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Stormwater | Completed | | | Historically pathway existed. Current discharge insignificant pathway; no actions recommended | Low | | EPA lead | | 1) Contaminated soil removal and containment (landfill); 2) Sediment removal; 3) RCRA waste containment; 4) Removed waste pond 5) O&M ongoing | | | | | | EPA lead | |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gould Electronics, Inc aka GA-TEK | 49 | 7.5W | 5909 NW 61st Ave | EPA lead; Chip Humphrey | EPA Consent Decree | | 03/15/06 | Other - Historic and Current NPDES permit | Completed | | | Historically pathway existed. Current discharge insignificant pathway; no actions recommended | Low | | EPA lead | | Removed waste pond (East Doane Lake); O&M ongoing | | | | | | EPA lead | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | Submitted to EPA fall 2004; no comments | | No SCM needed | | | | | | N/A | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Bank Erosion | Completed | Erodable Soils sampling conducted | Spring 2010 | Insignificant pathway; no actions recommended | Low | | Submitted to EPA fall 2004; no comments. | | | | | | | | N/A | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Groundwater | Ongoing | Chevron and Conoco conducting one GW SCE, Kinder Morgan conducting individual SCE | 2nd qtr 2011 for Kinder Morgan, 4th qtr 2010 for Chevron/Conoco | GW suspected migration pathway | High | High | 1st SCE submitted to EPA fall 2004; no comments. Waiting for revised GW SCE that includes deep groundwater and new site info to be completed | no alternatives evaluation needed | Product recovery & hydraulic containment for shallow GW (sheet pile wall) | Proposed SCM submitted to EPA fall 2004; no comments | hydraulic containment and treatment | | containment system installed 2006. | | | Effectiveness monitoring and operation and maintenance on going |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Stormwater | Ongoing | Stormwater characterization started fall 07', Chevron SCE complete | 4th Quarter 2010 | Waiting on SCE to be completed at Kinder/Morgan and Conoco, Chevron SCE under review | to be determined | | Waiting on SCE to be completed at 3 facilities. | | Leaking stormwater covenanyce system repaired to stop GW infiltration at Conoco and KM (Saltzman creek) | | OF-22 repaired 8/09, Conoco and Ceherson site specific repairs, KM-Saltzman creek repairs | | Repair stormwater system begun 11/07 | | | |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge (Kinder Morgan, Chevron, Conoco Phillips) | 1549 | 7.7 W | Front Ave & NW Doane | Mike Romero | Pre-PH Consent Order (3/94) | RI/FS | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | Part of stormwater characterization | 1st Qtr 2011 | Waiting on SCE to be completed | p Low | p Med | Waiting on SCE to be completed. | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Bank Erosion | Ongoing | Additional riverbank sampling | 1st Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed. | NA | NA | | | | NA | NA | NA | NA |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Groundwater | Ongoing | Additional groundwater data needed | 1st Qtr 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | NA | NA | | | | NA | NA | NA | NA |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Stormwater | Ongoing | Stormwater characterization and evaluation | 1st Qtr 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | NA | NA | | | | NA | NA | NA | NA |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Overwater Activities | Ongoing | Pathway needs to be evaluated in SCE | 1st Qtr 2011 | Waiting on SCE to be completed | p Low | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| McCall Oil | 134 | 7.8 W | 5550 NW Front | Jim Orr | PH Agr for RI/CSM (3/00) | RI | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Overland Transport/Sheet Flow | Completed | None | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Bank Erosion | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Groundwater | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Stormwater | Completed | None | NA | Complete | Low | | December 2009 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Overwater Activities | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Anderson Brothers Property | 970 | 8 W | 5275 & 5315 NW St. Helens Rd. | Bob Schwarz | ICP | NFA | 12/10/09 | Other | Completed | None | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Groundwater | Completed | N/A | N/A | Insignificant pathway; no actions recommended | Low | | EPA has reviewed and commented on SCD | No measures needed | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Stormwater | Completed | N/A | N/A | Pathway is complete | Low | | EPA has reviewed and commented on SCD | Completed; | In-line sediment removal; enhanced BMPs | Completed and ongoing Source control measures | BMPs such as catch basin inserts, inspection and catch | approximately 1 ton of catch basin and in-line solids removed to | Additional cleanout of line segment completed in August 2009, | August 2009; ongoing | EPA has reviewed and commented on | BMPs as documented in revised SWPCP |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chevron Asphalt | 1281 | 8.0 W | 5501 NW Front | Mark Pugh | PH Letter Agr for SCE (6/06) | O&M | 05/25/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Groundwater | Ongoing | None | 2nd Qtr 2011 | No known current sources (spills will be reported to OERS) | p Low | | Waiting on SCE completion | No measures needed | N/A | | | | | | | |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Stormwater | Ongoing | Working with neighboring sites to determine pipe locations, flow, ownership and conditions | 2nd Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | Pending SCE completion. Site piping receiving contaminants from city streets. | | | | | | | |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Willbridge Railyard | 3395 | 8.0 W | 5814 NW Doane Ave. | Shawn Rapp | Letter Agr for XPA | XPA | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | Part of Front Ave LP site, see ESCI #1239 | | | Overland Transport/Sheet Flow | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Bank Erosion | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Groundwater | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Stormwater | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Overwater Activities | | | | | | | | | | | | | | | | |
| Glacier Northwest Inc. | 2378 | 8.1 W | 5034 NW Front Ave | Mike Romero | | | | Other | | | | | | | | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | NA | NA | NA | NA | NA | NA | NA | N/A | N/A | N/A |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Bank Erosion | Ongoing | Conducting XPA and SCE | 4thQtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Groundwater | Ongoing | Conducting XPA and SCE | 4th Qtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed. | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Stormwater | Ongoing | Conducting XPA, additional sampling needed for SCE completion | 4th Qtr 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |
| Front Ave LP | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Front Ave LF | 1239 | 8.2 W | 4950, 5034 & 5200 NW Front | Mike Romero | VCP Letter Agr for PA (1/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| US Navy Reserve | 5109 | 8.2 W | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Overland Transport/Sheet Flow | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | p Med | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 W | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Bank Erosion | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Groundwater | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Stormwater | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Overwater Activities | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| US Navy Reserve | 5109 | 8.2 E | 6735 North Basin Avenue | Jim Orr | Agreement Not Established | RI/SCE | 07/29/10 | Other | Not Started | Not Started | Unknown Waiting for Navy Funding | Unknown | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Overland Transport/Sheet Flow | Ongoing | | 4th Quarter 2010 | Insignificant pathway; no actions recommended | p Low | p Med | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Bank Erosion | Ongoing | | 4th Quarter 2010 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Groundwater | Ongoing | | 4th Quarter 2010 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Stormwater | Ongoing | Sampling stormwater system | 4th Quarter 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Overwater Activities | Ongoing | | 4th Quarter 2010 | No known current sources (spills will be reported to OERS) | Low | | Waiting on SCE to be completed. | | | | | | | | | | |
| USCG | 1338 | 8.2 E | 6767 N Basin Ave. | Shawn Rapp | VCP Letter Agr (2/04) | RI | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Bank Erosion | N/A | | | N/A | none | | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Stormwater | Completed | | | Insignificant pathway | Low | | EPA reviewed and commented 8/2002 | | No SCM needed | | | | | | | | |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Kittridge | 2442 | 8.3 W | 4959 NW Front | Matt McClincy | PH Letter Agr for XPA (9/00) | NFA | 03/13/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | No known current sources (spills will be reported to OERS) | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Bank Erosion | N/A | N/A | No current schedule. | No known current sources (spills will be reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Groundwater | N/A | N/A | No current schedule. | No known current sources (spills will be reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Stormwater | Ongoing | Complete stormwater system characterization | 4th Qtr 2010 | to be determined | p Low | | Waiting on SCE to be completed. | | | | BMPs such as catch basin inserts, inspection and catch basin cleanout on periodic basis | | | | | | |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Fred Devine | 2365 | 8.3 E | 6211 N Ensign | Karen Tarnow | VCP Letter Agreement 11/06 | XPA | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner Truck Plant | 2368 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Freightliner Truck Plant | 2368 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner Truck Plant | 2368 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Groundwater | Ongoing | determine nature and extent of VOC plume | 4th Qtr 2010 | Waiting on SCE/RI report to be completed | p Low | | Waiting on SCE/RI to be completed. | | | | | | | | | |
| Freightliner Truck Plant | 2368 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Stormwater | Ongoing | SW evaluation started 07' | 1st Qtr 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | RP voluntarily applying SW engineering controls on Ensign Street Outfall; coating metal roof; stormwater system sediment cleanout 06-07' prior to completing screening | | | | | | | |
| Freightliner Truck Plant | 2368 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner Truck Plant | 2368 | 8.3 E | 6936 N Fathom | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/11/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Bank Erosion | Ongoing | Prepare SCE report | To be determined | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE completion | | | | | | | | | |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Groundwater | Ongoing | Prepare SCE report | To be determined | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | UIC closures in 2003 | | | | | | | |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Stormwater | Ongoing | Initiate stormwater evaluation | To be determined | Waiting on SCE to be completed | to be determined | p Low | Waiting on SCE completion | | Interim SCM: stormwater UICs | | | | | | | |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lakeside Industries | 2372 | 8.4 W | 4850 NW Front | Jim Orr | PH Letter Agr for XPA (3/02) | XPA | 07/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Overwater Activities | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented, 8/2002 | | No SCM needed | | | | | | | |
| Shaver Transportation | 2377 | 8.4 W | 4900 NW Front | Mark Pugh | PH Letter Agr for XPA (3/01) | NFA | 03/03/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Overland Transport/Sheet Flow | To be evaluated by Port of Portland. | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Bank Erosion | To be evaluated by Port of Portland. | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Groundwater | To be evaluated by Port of Portland. | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Stormwater | Ongoing | Draft SCE in review | 4th Qtr 2010 | Complete | p Med | p Med | Waiting on SCE to be completed. | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Overwater Activities | Ongoing | Draft SCE Submitted 4/10 in review | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| Portland Shipyard (Vigor Industrial Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | XPA | 6/21/2010 | Other | N/A | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Overland Transport/Sheet Flow | Ongoing | OU-1 SCE in prepartaion, OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | p Med | Waiting on SCE to be completed | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Bank Erosion | Ongoing | OU-1 SCE in prepartaion, OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completd | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Groundwater | Ongoing | OU-1 SCE in prepartaion, OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completd | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Stormwater | Ongoing | OU-2 SCE draft submitted 4/10, OU-3 SCE draft submitted on 4/10 | 4th Qtr 2010 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completd | | | | | | | | | |
| Portland Shipyard (Port of Portland) | 271 | 8.4 E | Swan Island | Dave Lacey | Voluntary Agreement (6/06) | RI | 12/21/09 | Overwater Activities | Ongoing | N/A | N/A | N/A | N/A | | N/A | | | | | | | | | |
| Mt Hood Chemicals | 81 | 8.5 W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Groundwater | Ongoing | Compliance Monitoring of groundwater and sub slab vapors. Treatment of groundwater by Hydrogen Release Compound and Vapor extraction. | 4th Qtr 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting on SCE to be completed | | Operating insitu groundwater VOC treatment HRC and vapor extraction system | | Operating insitu groundwater VOC treatment HRC and vapor extraction system December 2010 | | SCM Complete | December 2010 | Schedule for completing final evaluation report: December 2010 | periodic inspection and maintenance |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Stormwater | Ongoing | SCE Work Plan and implementation | 4th Qtr 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting on SCE to be completed | | | | | | | | | |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mt Hood Chemicals | 81 | 8.5W | 4444 NW Yeon | Jim Orr | Agreement for Stormwater Assessment & Source Control | RI/SCE | 07/29/10 | Other | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | NFA | 07/27/10 | Overland Transport/Sheet Flow | Completed | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | NFA | 07/27/10 | Bank Erosion | Completed | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | NFA | 07/27/10 | Groundwater | Completed | N/A | N/A | N/A - | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | PPA | SCE | 07/27/10 | Stormwater | Ongoing | None | | Complete | Low | | SCD document needs to be prepared by DEQ schedule TBD | | PPA with City of Portland requires ongoing erosion control pending site development | | | | | | | |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | N/A | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Forest Park | 2406 | 8.5 W | 4400 Block Street | Karen Tarnow | 1999 ICP Agreement | N/A | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Medium | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Groundwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 08/02/10 | Stormwater | Completed | | | Pathway is complete | Medium | | EPA reviewed and commented on preliminary SCD, 6/2004 | alternatives evaluation completed, submitted to EPA 9/2005 | stormwater catch basin in-line cleanout, stormwater BMPs, monitoring | SCM SCD finalized 11/2005, EPA commented | stormwater catch basin in-line cleanout, stormwater BMPs, monitoring | | New data resulted in DEQ reopening project and reviewing the adequacy of the 2005 source control action. Re-evaluate stormwater solids fall 2010 | | EPA reviewed and commented 11/2005 | |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 2454 | 8.5 W | 4927 NW Front | Tom Gainer | PH Letter Agr for XPA (1/01) | XPA | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product Pipeline | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product Pipeline | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Groundwater | Ongoing | Review of Guilds Lake Rail Yard data and Gunderson data | 4th quarter 2010 | Waiting on SCE to be completed | p Low | | Waiting for SCE to be completed | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Texaco Product | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Stormwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Product Pipeline | 2117 | 8.7 W | 4500 Block Front Ave. | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | N/A | | No SCM needed | | | | | | | |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | None | conditional NFA 2004 | 11/04/09 | Stormwater | Deferred | Stormwater characterization | No current schedule | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion | | | | | | | | | |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | Karen Tarnow | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Recovery | 4015 | 8.8 W | 3900 NW Yeon | | Pre-PH VCP Letter Agr for RI/FS | conditional NFA 2004 | 11/04/09 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Groundwater | Ongoing | Part of Stormwater Assessment | 3rd Qtr 2011 | to be determined | to be determined | p Med | Waiting on SCE to be completed; | | Product recovery from groundwater - dual phase extraction | | | | | | | |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Stormwater | Ongoing | Storm water sampling per JSCS and evaluation of groundwater preferential flow to storm sewer | 3rd Qtr 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed; | N/A | Storm water BMPs and filtering catch basin sediment | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Christensen Oil | 2426 | 8.9 W | 3821 NW St Helens | Shawn Rapp | VCP Letter Agr for PA (8/00) | XPA | 07/27/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Groundwater | Ongoing | 2nd Quarter 2011 | 2nd Quarter 2011 | Waiting on SCE to be completed | p Low | p Low | Waiting for SCE to be completed; | | | | | | | | | |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Stormwater | Ongoing | Evaluating groundwater infiltration to storm sewer system | 2nd Quarter 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Texaco Terminal | 169 | 8.9 W | 3800 NW St Helens | Matt McClincy | PH Agr for RI/SCM (8/00) | RI | 08/09/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Coreective Action Order | Corrective Measures Implementation | 08/05/10 | Overland Transport/Sheet Flow | N/A | NA | NA | NA | None | | N/A | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Bank Erosion | N/A | NA | NA | NA | None | | N/A | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Groundwater | Completed | | | Groundwater under control | | to be determined | NA | Corrective Measures Study Completed 4/21/06 | Soil Vapor Extraction and Groundwater Pump and Treat | Completed | Soil Vapor Extraction and Groundwater Pump and Treat | 468,000 lbs | Optimization of SVE and Groundwater Extraction Systems/2008 through 2010 | | EPA notes that the discovery of NAPL warrants a re-evaluation fo the remedy - schedule for this is in development | Ongoing maintenance of SVE wells, extraction wells and treatment system |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Stormwater | Ongoing | Stormwaer Pathway Evaluation | 1st Quarter 2011 | Waiting on SCE to be completed | | | NA | Planned for 2nd Quarter 2011 | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Basis for determination that source control is needed | | | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| | | | | | | | | | | | | Pathway determination | Pathway priority level | Site priority level | | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Overwater Activities | N/A | NA | NA | NA | None | | NA | | | | | | | | | |
| Vanwater and Rogers (Univar) | 330 | 9 W | 3950 NW Yeon Ave | EPA lead; Holly Arrigoni | RCRA Corrective Action Order | Corrective Measures Implementation | 08/05/10 | Other | | | | | | | | | | | | | | | | |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Groundwater | Ongoing | GW investigation ongoing | 3rd Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Stormwater | Ongoing | SW investigation ongoing; | 3rd Qtr 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Guilds Lake RR Yard | 100 | 9.0 W | 3500 NW Yeon | Jim Orr | PH Agr for RI/SCM (12/02) | RI | 07/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overland Transport/Sheet Flow - Area 1 | N/A | N/A, entirely paved and/or developed | N/A | N/A | none | High | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overland Transport/Sheet Flow - Area 2 | Ongoing | DEQ review of Focused Area 2 RI report & source control screening | TBD pending DEQ's review of Focused Area 2 RI report | Pathway is complete | p High | | Waiting on SCE to be completed. | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overland Transport/Sheet Flow - Area 3 | Ongoing | DEQ review of Focused Area 3 RI report & source control screening | TBD pending DEQ's review of Area 3 RI report | Pathway is complete | p High | | Waiting on SCE completion | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Bank Erosion - Area 1 | Ongoing | Survey of erodible soils, follow up sampling | 1st Quarter 2011 | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Bank Erosion - Area 2 | Ongoing | Bank characterization needs to be completed. | 1st Quarter 2011 | Pathway is complete | High | | | 2 FFS's drafted and rejected by DEQ for lack of data, sampling work plans and FFS revisions pending. | Final SCMs TBD. Interim SCMs being considered: excavation of soil/blastsand grit, engineered sediment/grit traps, selected area revegetation, and additional operations reviews & improvements. | | Interim SCM currently includes shrouding work areas during barge welding & sandblasting. | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Bank Erosion - Area 3 | Ongoing | Bank characterization needs to be completed. | 1st Quarter 2011 | Pathway is complete | High | | | Gunderson working on Area 3 FFS revisions based on Area 2 FFS comments. | Final SCMs TBD. Interim SCMs being considered include soil excavation, selected area revegetation, and engineered bank stabilization. | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Overwater Activities - Area 3 | N/A | N/A | N/A | No known current sources (spills will be reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Groundwater - Area 1 | Ongoing | Complete site wide groundwater screening to update sampling program | 1st Qtr 2011 | Groundwater is a complete pathway, VOC plume migrating to/under river. | p Med | | EPA comments received 5/03 | Alternatives evaluation completed, EPA comments received 5/2003 | Hydraulic containment and source removal using air- | | SCD submitted to EPA 2/2003, EPA comments received 5/2003 | P&T and AS/SVE systems installed and operating | ~40 lbs. of HVOCs removed as of 7/07 | Conduct SCMs effectiveness evaluation(s). Schedule TBD. | | | Quarterly performance monitoring and reporting |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Groundwater - Area 2 | Ongoing | RI in review, also see comment for Area 1 | 1st Qtr 2011 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed. | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that scurce control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Groundwater - Area 3 | Ongoing | RI in review, also see comment for Area 1 | 1st Qtr 2011 | Pathway is complete | p Med | | Waiting on SCE to be completed. | | | | | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Stormwater - Area 1 | Ongoing | Review stormwater sampling plan (10/08) and catch basin sediment sampling report (01/08) | 2nd Quarter 2011 | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed. | | Interim SCMs being evaluated | | Current BMPs include catch basin filter inserts & annual clean-out of catch basins | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Stormwater - Area 2 | Ongoing | Upgrade SW system around launchways - piping and treatment | 2nd Quarter 2011 | Pathway is complete | p High | | Waiting on SCE to be completed. | | Interim SCMs in design include, legacy sediment piping cleanouts | | Current BMPs include catch basin filter inserts, annual clean-out of catch | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Stormwater - Area 3 | Completed | | 2nd Quarter 2011 | Pathway is complete | High | | | TBD pending DEQ's review of RI report and 2008/2009 storm water system sampling reports | Final SCMs TBD & interim SCMs being considered include, | | Current BMPs include catch basin filter inserts, annual clean-out of catch | | | | | |
| Gunderson | 1155 | 9.0 W | 4350 SW Front | Shawn Rapp | Pre-PH VCP Formal Agr for RI/FS (1994) | RI | 08/05/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Groundwater | Ongoing | Review draft Groundwater SCE | 1st Qtr 2011 | to be determined | p Low | | | | | | | | | | | |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Stormwater | Ongoing | Additional stormwater sampling needed | 1st Qtr 2011 | Waiting on SCE to be completed | to be determined | | | | RP voluntary cleanout of stormwater system prior to completing screening | | | | | | | |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Freightliner (Parts Mfg Plant) | 115 | 9.2 E | 5400 N Basin | Mike Romero | PH Agr for RI/SCM (12/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Groundwater Investigation of Dry Wells Only | Ongoing | Complete characterization | TBD | Waiting on SCE to be completed | p Low | | Waiting on SCE completion | | | | | | | | | |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Stormwater | Ongoing | Complete characterization | TBD | Waiting on SCE to be completed | p Med | p Med | Waiting on SCE completion | | | | | | | | | |
| Container Management | 4787 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overwater Activities | N/A | N/A | N/A | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Container Management | 4784 | 9.3W | 3000 NW St Helens Rd | Jim Orr | Leter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Other | N/A | N/A | No current schedule. | Waiting on SCE to be completed | to be determined | | Waiting on SCE completion (m-y) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | n/a | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Groundwater | Completed | N/A | N/A | Incomplete pathway | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Stormwater | Completed | None | SCE will be submitted with performance monitoring expected 3rd Qtr 2011 | Pathway is complete | p Low | | Waiting on SCE completion | Waiting on SCE completion | Line Cleanout completed and new stormwater system constructed 2010 | pending SCD | Line Cleanout completed | 3,740 gallons of standing water and storm line cleanout wster removed; 2.50 tons in-line sediment disposed of as F-listed waste. | Performance monitoring 4th Qtr 2010 - 2nd Qtr 2011 | TBD | TBD | TBD |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Columbia American Plating | 29 | 9.3W | 3003 NW 35th Ave | Mark Pugh | Consent Judgment | SCE | 05/25/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3250 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | N/A | p Med | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3250 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3251 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Groundwater | N/A | N/A | NA | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3252 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Stormwater | Ongoing | Work plan under review | 4th Quarter 2010 est | to be determined | p Med | | Waiting on SCE completion | | | | | | | | | |
| Wilhelm Trucking | 69 | 9.3W | 3253 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Overwater Activities | N/A | N/A | NA | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Wilhelm Trucking | 69 | 9.3W | 3250 and 3074 NW St. Helens Road | Jim Orr | Letter Agreement for Stormwater Assessment and Source Control 5/26/08 | SCE | 07/29/10 | Other | N/A | N/A | N/A | N/A | N/A | | N/A | NA | NA | NA | NA | NA | NA | NA | NA | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Groundwater | Ongoing | Review draft SCE | 3rd Quarter 2011 | N/A | p Low | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Stormwater | Completed | | 2/06 SCE Report submitted | Pathway is complete | Medium | Medium | Done | SCM implementation report summer 2007 | Removal of PCB contaminated sediment from onsite catch basins and pipes, new CBs/filters, new pipes, paving | | 1st qtr. 2007 | | | 11/25/08 Post-SCM monitoring completed | | Continued BMPs |
| GE Decommissioning | 4003 | 9.5 W | 2727 NW 29th | Tom Gainer | PH Agr for XPA (1/04) | XPA | 08/02/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Overland Transport/Sheet Flow | N/A | N/A, site located ~4,500 feet from river | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Bank Erosion | N/A | N/A, site located ~4,500 feet from river | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Groundwater | Ongoing | Draft SCE in review | 4th Qtr 2010 | Pathway is complete | p Med | p Med | Waiting on SCE to be completed. | | | | | | | | | |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Stormwater | Ongoing | Draft SCE in review | 4th Qtr 2010 | Pathway is complete | p Med | | Waiting on SCE to be completed. | | Stormwater RX System Installed and Operational | | Collecting/reusing Main Plant canopy roof run-off in galvanizing process (5/07), repairing/sealing pavement in NE plant yard (8/07). | | Sealing unused/unecessary connections to City piping (Winter 2008), site paving and pavement sealing (Summer 2008) | Stormwater RX operating January 2010 | | Maintenance of Stormwater RX System |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Overwater Activities | N/A | N/A, site located ~4,500 feet from river | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Galvanizers Company | 1196 | 9.6 W | 2406 NW 30th | Jim Orr | PH Agr for XPA (10/03) | XPA | 07/29/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Groundwater | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Stormwater | Completed | N/A | | No current pathway; legacy solids in storm lines to be investigated | Low | Low | Waiting on SCE completion | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Basis for determination that source control is needed | | | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| | | | | | | | | | | | | Pathway determination | Pathway priority level | Site priority level | | | | | | | | | | |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paco Pumps | 146 | 9.6 W | 2551 NW 30th | Jim Anderson | ICP Agreement (01/03/07) | NFA | 01/24/08 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | p Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 08/02/10 | Groundwater | Ongoing | | 4th Qtr 2010 | Insignificant pathway; no actions recommended | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 08/02/10 | Stormwater | Ongoing | Evaluate stormwater system | 4th Qtr 2010 | Waiting on SCE to be completed | to be determined | | Waiting on SCE to be completed | | | | | | | | | |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 2 | 2769 | 10.0 W | 3556 NW Front | Tom Gainer | IGA | XPA | 02/19/09 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | Medium | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Groundwater | Ongoing | Two quarters of GW monitoring complete. Final report due in October 2010. No significant issues. | December 2010 | Pathway is complete | none | | Waiting on SCE completion (m-y) | evaluation to be part of upland FS; schedule for completing draft/final: December 2010 | No SCM needed | June 2011 Tenative Date | N/A | N/A | N/A | N/A | Review Pending. SCA not submitted. | no alternatives evaluation needed |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Stormwater | Ongoing | Pilot study to evaluate surface washing of PCB contaminaiton is complete. Focused Feaseability Study in production. Most likely surface capping and SW treatment. | No current schedule. | Pathway is complete | Medium | | Waiting on SCE completion (m-y) | evaluation to be part of upland FS; schedule for completing draft/final: August 2011 | stormwater catch basin in-line cleanout, stormwater BMPs, asphalt and concrete surface capping/sealing, Stormwater RX System installation, and monitoring | June 2011 Tenative Date | stormwater catch basin in-line cleanout, stormwater BMPs, monitoring | | ongoing stormwater monitoring through spring 2011 | August 2011 | Review Pending. SCA not Submitted. | effectiveness monitoring |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Calbag Metals | 5059 | 10.1 W | 2495 NW Nicoli St. | Jim Orr | Letter Agreement for Source Control Assessment 2009 | SCE | 07/28/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Overland Transport/Sheet Flow | Submitted | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | p Low | p Low | Waiting on SCE to be completed | | | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Bank Erosion | Submitted | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Groundwater | under revision | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | to be detennined | | Waiting on SCE to be completed | | | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Stormwater | Submitted | Review document | 4th Quarter 2010 | SCE complete, DEQ review underway | to be determined | | Waiting on SCE to be completed | | RP cleaned out stormwater system prior to completion of | | | | | | | |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| UPRR Albina | 178 | 10.3 E | 2745 N Interstate | Mike Romero | PH Agr for RI/SCM (3/02) | RI | 06/30/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | N/A | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | Source Control Evaluation (SCE) | | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | N/A | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA reviewed and commented 5/04 | | No SCM needed | | | | | | N/A | |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Goldendale Aluminum | 2440 | 10.3 E | 2600 N River | Tom Gainer | PH Letter Agr for XPA (2/00) | NFA 5/2004 | 03/06/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA commendted on SCD in 10/06 | Source Control Decision and NFA issued 12/6/06 | | | | | | | | |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Stormwater | N/A | N/A | N/A | N/A | none | Low | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| PGE Substation E | 3976 | 10.4 W | 2635 NW Front Ave. | Tom Gainer | VCP | NFA | 12/22/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Overland Transport/Sheet Flow | N/A | Qualitative Assessment | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Bank Erosion | Completed | None | Pending completion of storm water evaluation | Waiting on SCE to be completed | p Med | | Waiting on SCE to be completed | | | | | | | | | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Groundwater | Ongoing | Need for additional evaluation and possible sampling | 4th Quarter 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Stormwater | Ongoing | Complete SCE sampling and reporting | 4th Quarter 2010 | Waiting on SCE to be completed | p Med | p Med | Waiting on SCE to be completed | | Storm line and catch basin cleanout | | Cleanout completed in Oct 2006 | 25 tons of sludge | twice annual cleaning of catch basins | | | periodic inspection and maintenance; twice annual cleanout |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Overwater Activities | N/A | N/A | N/A | No known current sources (spills reported to OERS) | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sulzer Pump | 1235 | 10.4 W | 2800 NW Front | Mark Pugh | Letter Agr for XPA (9/02) | SCE | 05/25/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | p Low | p Low | Waiting on SW SCE to be completed | | | | | | | | | |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | RI | 09/01/10 | Stormwater | Ongoing | Complete stormwater sampling by BES | 4th Qtr 2010 | Waiting on SCE to be completed | p Low | | Waiting on SCE to be completed | | | | | | | | | |

# Table 1: DEQ Milestone Report
## Controlling Confirmed or Suspected Upland Sources of Contamination to Portland Harbor

| Confirmed or suspected sources of contamination to the river | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site information | | | | | Project status | | | Source Control Evaluation (SCE) | | | | | | | Source Control Decisions (SCDs) and Status of Source Control Measures (SCMs) | | | | | | | | | |
| | | | | | | | | | | | | Basis for determination that source control is needed | | | | | | | | | | | | |
| Site name | ECSI # | River mile | Address | DEQ PM | Type of agreement directing source control | Project status | Date last modified (m-d-y) | SCE Pathway | Status of SCE | Major SCE tasks to be completed | Schedule for completing SCE | Pathway determination | Pathway priority level | Site priority level | Status of EPA review of SCE decision | Source control alternatives evaluation and schedule (m-y) | Selected SCMs | Status of EPA review of SCM selection decision | SCM activities completed to date (m-y) | Mass or volume of contaminants controlled | Additonal Proposed SCM activities to be done and schedule (m-y) | Date SCM completed (m-y) | Status of EPA review of completed SCM | Operaton and maintenance requirements |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Port of Portland Terminal 1 North | 3377 | 10.6 W | 2200 NW Front | Tom Gainer | PH Agr for RI/SCM | FS | 09/01/10 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Overland Transport/Sheet Flow | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | Soil removal and management plan during development; Deed restrictions | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Bank Erosion | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Groundwater | Completed | | | Insignificant pathway; no actions recommended | Low | Low | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Stormwater | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Overwater Activities | Completed | | | Insignificant pathway; no actions recommended | Low | | EPA did not review SCD since site was outside PH | | No SCM needed | | | | | | EPA did not review SCD since site was outside PH | |
| Riverscape (aka Port of Portland T1S) | 2642 | 10.9 W | 2100 NW Front | Matt McClincy | RD/RA Agreement (06/06/03) | Conditional NFA 6/2003 | 03/13/06 | Other | N/A | N/A | N/A | N/A | none | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Overland Transport/Sheet Flow | N/A | N/A | N/A | N/A | none | | | | | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Bank Erosion | N/A | N/A | N/A | N/A | none | | | | | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Groundwater | Ongoing | PA in progress | 4th quarter 2010 | Waiting on SCE to be completed | p Low | | | | | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Stormwater | Ongoing | Soil abatement and stormwater monitoring | 1st Qtr 2011 | Waiting on SCE to be completed | p Med | | | | Selected soil removals in progress | | | | | | | |
| Pacificorp | 5117 | 11.6 E | Multiple sites in Albina Riverlots area | Dan Hafley | PH Agr for RI/SCM | XPA | 07/27/10 | Overwater Activities | N/A | N/A | N/A | N/A | none | | | | | | | | | | | |

# DEQ Milestone Report
# Information about the Source Control Table

## Use Of This Sheet

This spreadsheet is intended to track and share information regarding the status of current and potential future upland source control measures. Information is logged by the status of the evaluation in each pathway. The following pathways are included: overland transport, back erosion, groundwater, stormwater, overwater activities, and other (see definitions below). Site included in this spreadsheet are currently being investigated under DEQ oversight or a recent source control decision made for the facility. For more information on these sites please visit DEQ's Environment Cleanup System Information (ECSI) database at http://www.deq.state.or.us/wmc/ECSI/ecsiquery.htm

## Definitions

### Potential contaminant migration pathways

**Overland Transport** = Uncontrolled sheet flow of water and other material to the river from a site.
**Bank Erosion** = Erosion of material within the sloping bank areas of the site to the river.
**Groundwater** = Groundwater plumes or discharges to the river either via seeps or through preferential pathways.
**Stormwater** = Stormwater discharges to the River that originates from a pipe (permitted or unpermitted).
**Overwater Activities** = The storage or use of hazardous substances over the water (i.e., storage tanks on docks, permanent work activities conducted over water), that if released would be a ptotential current or future source of contamination to the river. Pipelines and other conveyance systems are not considered in this category. Releases from these types of systems need to be reported to the state Oregon Emergency Response System (OERS) system.
**Other** = Pathway examples: wastewater discharges, air deposition, direct discharges.

### Priority levels for pathways and sites

**High** = High priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is significantly impacting the river or poses a significant and imminent threat to the river based on initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS). A primary consideration is that one or more media (soil, water, air) significantly exceed applicable Screening Level Values (SLVs) at the point of discharge to the river (e.g., water at the end of a discharge pipe, or soil or material at the riverbank) or the most reliable and cost-effective data point (e.g., groundwater measured at the shoreline), or where a bioaccumulative chemical is detected at concentrations significantly above the SLV. In addition, if an upland source is violating DEQ narrative water quality criteria for the Willamette River, the site may be considered a high priority. High priority sites are expected to move forward with aggressive source control measures without delay or be subject to enforcement action.
**Medium** = Medium priority pathways and sites are those where a complete contaminant migration pathway exists and the upland source is impacting the river or poses a significant and/or imminent threat to the river based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS). A primary consideration is that one or more media exceed applicable SLVs, but not significantly, at the point of discharge to the river, or where a bioaccumulative chemical is detected at concentrations above the SLV. Although exceedance of SLVs does not necessarily indicate a site poses a significant and/or imminent threat or needs to immediately implement source control measures, it does indicate that the site may pose a threat to human health or the environment and that additional evaluation may be needed to determine if source control measures are required to prevent, minimize or mitigate the migration of hazardous substances to the river. If the site exceeds one or more SLVs, the need for further characterization or for implementation of source control measures will be based on a site-specific weight-of-evidence determination. Medium priority sites are expected to perform a weight-of-evidence evaluation to determine if source control measures are required.

**Low** = Low priority pathways and sites are those where upland data indicate, based on an initial evaluation of key source control prioritization factors (listed on p. 4-3 JSCS), that the site likely poses a low threat to the river (e.g., concentrations are near or below SLVs) or where DEQ, in consultation with EPA, may issue an upland "No Further Action" (NFA) determination or lower the State's priority of the site for further upland investigation or remedial action under DEQ's cleanup authority. Source control measures will not be required at low priority sites unless determined necessary by the results of the Portland Harbor RIFS or ROD.

**p High** = DEQ's preliminary determination is that this is likely a high priority pathway or site based on available information; pending formal source control evaluation determination.

**p Med** = DEQ's preliminary determination is that this is likely a medium priority pathway or site based on available information; pending formal source control evaluation determination.

**p Low** = DEQ's preliminary determination is that this is likely a low priority pathway or site based on available information; pending formal source control evaluation determination.

## Shading

= Upland Source Control Decision has been completed for the specified pathway at this site.

# DEQ Milestone Report
# Information about the Source Control Table

## Pick Lists

Pick lists are used to faciliate the addition of information to the spreadsheet. A pick list is a list that can be used by the project manager to select an entry from a group of designated choices. Pick lists will appear as a pull down menus in the lower right corner for the following fields: *Project status, Status of SCE, Schedule for Completing SCE, Completeness of pathway to the river, Pathway priority level, Site priority level, Source control alternatives evaluation and schedule, Selected SCMs, Mass or volume of contaminants controlled,* and *Operation and maintenance requirements*. The pick lists for these fields are shown below.

| Project Status |
|---|
| PA |
| XPA |
| RI |
| FS |
| RD / RA |
| NFA |
| PPA |
| CNFA |

| Status of SCE |
|---|
| Ongoing |
| Not Started |
| Pending EPA Review |
| Completed |
| N/A |

| Schedule for completing SCE |
|---|
| No current schedule. |
| SOW under development, due (type |
| SOW currently being implemented. |
| (PM description of schedule) |
| N/A |

| Pathway determination |
|---|
| Pathway is complete |
| Insignifcant pathway; no actions recommended |
| Waiting on SCE to be completed |
| No known current sources (spills will be reported to OERS) |
| (PM description of source and pathway) |
| N/A (use when the pathway does not exist at the site) |

| Alternatives evaluation and schedule |
|---|
| no alternatives evaluation needed |
| schedule for completing draft evaluation report: |
| schedule for completing final evaluation report: (m/y) |
| evaluation to be part of upland FS; schedule for completing draft/final: (m/y) |
| alternatives evaluation completed (m/y) |

| Priority level |
|---|
| High |
| Medium |
| Low |
| p High |
| p Med |
| p Low |
| to be determined |
| none (use if SCE determined the pathway to be incomplete) |

| Status of EPA "Partners" Review of SCA Decision |
|---|
| EPA reviewed and commented. |
| Review Pending. SCA submitted (type date). |
| SCA to be submitted on (type date). |
| Public Comment period (type date) to (type date). |
| SCA submitted to EPA ( type date). No comments. |
| N/A |

| Status of EPA review of SCE decision |
|---|
| Review pending; SCE submitted (m-y) |
| Waiting on SCE completion (m-y) |
| SCE to be submitted to EPA on (m-y) |
| To be determined |
| SCE submitted to EPA (m-y); no comments |
| N/A |

| Selected SCMs |
|---|
| No SCM needed |
| (PM description of SCMs) |
| N/A |

| Operation and Maintenance requirements |
|---|
| periodic inspection and maintenance |
| effectiveness monitoring |
| site use restrictions |
| (PM description of operation/maintenance requirements) |
| none |

| Mass/Volume of contaminants controlled |
|---|
| cubic yards of soil removed |
| square feet of area capped |
| linear feet of plume controlled at riverbank |
| linear feet of riverbank stabilized |
| gallons of product recovered |
| (PM description of mass/volume/area controlled) |

## DEQ Milestone Report
## Information about the Source Control Table

**Acronyms & Abbreviations**

| | |
|---|---|
| Agr | Agreement |
| AOC | Administrative Order on Consent |
| AS/SVE | Air sparge soil vapor extraction |
| AST | Above ground Storage Tank |
| BMPs | Best Management Practices |
| BRA | Baseline Risk Assessment |
| CNFA | Conditional No Further Action |
| ECSI | Environmental Cleanup Site Information |
| FS | Feasibility Study |
| GW | Groundwater |
| IGA | Inter-Governmental Agreement |
| JSCS | Joint Source Control Strategy |
| NA | Not Applicable |
| NFA | No Further Action |
| OF | Outfall |
| p&t | Pump & Treat |
| PA | Preliminary Assessment |
| PH | Portland Harbor |
| PH Agr | Portland Harbor Agreement - a formal agreement for a RI and SC |
| PH Ltr Agr | Portland Harbor Letter Agreement - an initial contract covering DEQ oversight costs and limited investigation and cleanup activities |
| PM | Project Manager |
| PPA | Prospective Purchaser Agreement |
| RD/RA | Remedial Design/Remedial Action |
| RI | Remedial Investigation |
| RI/FS | Remedial Investigation/Feasibility Study |
| SC | Source Control |
| SCD | Source Control Decision |
| SCM | Source Control Measure |
| SLV | Screening Level Value |
| SOW | Scope of Work |
| SVE | Soil Vapor Extraction |
| TCA | Trichloroethane |
| UST | Underground Storage Tank |
| WO | Waiting on |
| XPA | Expanded Preliminary Assessment |

**DEQ Project Managers' Phone Numbers**

| | |
|---|---|
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| Scott Manzano | (503) 229-6748 |

# DEQ Source Control Decisions
# Current and Potential Upland Sources to the River

## Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| | | | | | |
| Wilhelm Trucking | | 69 | | 9.3 | 3250 and 3074 NW St. Helens Road |
| McCall Oil | | 134 | | 7.8 | 5550 NW Front |
| NW Pipe Company | | 138 | | 3.9 | 12005 N Burgard |
| ACF Industries | American Car Foundry, EMC Industries - ACF Car, Pacific Metal Substations, Inc., Richmond Tank Car and Manufacturing Co | 794 | | 3.6 | 12160 NW St Helens |
| Air Liquide | Schnitzer Investment - Doane Lake | 395 | | 7.2 | 6529 NW Front Ave. |
| Anderson Brothers | | 970 | | 8.9 | 5275 & 5315 NW St. Helens Road |
| Atofina | Arkema, Elf Atochem North America, Pennwalt Chemical Corp. | 398 | | 7.2 | 6400 NW Front |
| Galvanizers Company | | 1196 | | 9.6 | 2406 NW 30th Ave. |
| BP Terminal 22T | ARCO, ARCO Linnton Terminal, BP Atlantic Richfield Company | 1528 | 2373, 2351 | 4.8 | 9930 NW St Helens |
| Brix Maritime | Foss Maritime Co., Knappton Corp. | 2364 | | 5.5 | 9030 NW St Helens |
| Schnitzer Burgard Industral Park | | 5324 | | 3.8 | 12005 N Burgard |
| Schnitzer Steel | Schnitzer Burgard Industral Park | 2355 | | 4 | 12005 N Burgard |
| Lakeside Industries | | 2372 | | 8.4 | 4850 NW Front Ave. |
| Calbag Metals | ACME Trading and Supply | 2454 | 2425 | 8.5 | 4927 NW Front |
| Chevron Asphalt | | 1281 | | 8 | 5501 NW Front |
| Christensen Oil | HAJ, Incorporated | 2426 | | 8.9 | 3821 NW St Helens |
| City of Portland Outfalls | | 2425 | | 3.5 to 9.2 | various |
| Columbia American Plating | | 29 | | 9.3 | 3003 NW 35th Ave. |
| Con-Metco | | 3295 | | 2.8 | 3940 N Rivergate |
| Container Management | | 4784 | | 9.3 | 3000 NW Saint Helens Rd. |
| Container Recovery | | 4015 | | 8.8 | 3900 NW Yeon |
| Crawford Street Corp | Columbia Forge & Machine Works, Lampros Steel - 8524 N Crawford, TLS Steel - 8514 N Crawford | 2363 | | 6.3 | 84248 N Crawford |
| Esco Landfill | | 4409 | | NA | 14444 NW Gilliam Loop Rd. |
| Exxon Mobil | ExxonMobil Bulk Plant, ExxonMobil Terminal, Mobil NuStar Oil Bulk Plant - St. Helens RD, Shore Terminals, ST Services, Olympic Pipeline | 137 | | 5.1 | 9420 NW St Helens |
| Fred Devine | Pacific Coast Environmental, The Marine Salvage Consortium Inc | 2365 | | 8.3 | 6211 N Ensign |
| Freightliner (Parts Manufacturing Plant) | a.k.a. Freightliner Truck Manufacturing Plant II | 115 | | 9.2 | 5400 N Basin |
| Freightliner (Truck Plant) | | 2366 | | 8.3 | 6936 N. Fathom |

## DEQ Source Control Decisions
## Current and Potential Upland Sources to the River

### Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| Front Ave LP | CMI Northwest, Hampton Lumber Sales, Glacier NW (former Lone Star), Tube Forgings of America | 1239 | 2378 | 8.2 | 4950, 5034 & 5200 NW Front |
| Galvanizers Company | | 1196 | 2425 | 9.6 | 2406 NW 30th Ave. |
| Gasco | NW Natural, Koppers Co. - Portland, Pacific Northern Oil Co., | 84 | 183 | 6.4 | 7900 NW St Helens |
| Gasco/Siltronic Corp. | Siltronic Corporation, Walker Siltronic | 183 | 84 | 6.6 | 7700 NW Front |
| GE Decommissioning | | 4003 | 2425 | 9.5 | 2727 NW 29th Ave. |
| Georgia Pacific Linnton | Georgia-Pacific / Western Wood Prods Manuf Divn, Georgia-Pacific West, Morge Bros | 2370 | | 3.5 | 12222 NW Marina |
| Goldendale Aluminum | Ash Grove Cement, Columbia Aluminum, Martin Marietta, Golden NW Aluminum | 2440 | | 10.3 | 2600 N River |
| Gould Electronics | NL Industries | 49 | | 7.5 | 5909 NW 61st Ave. |
| GS Roofing | Bird & Son, Certainteed Corporation, Fibreboard Corporation | 117 | | 7.5 | 6350 NW Front |
| Guilds Lake RR Yard | Burlington Northern Santa Fe Railroad Lake Yard, Guilds Lake Railyard, Kleen Blast Abrasives, Lake Yard, Portland Terminal Railroad Guilds Lake Yard | 100 | | 9 | 3500 NW Yeon |
| Gunderson | | 1155 | 2372, 2425 | 9.0 | 4350 SW Front |
| Mt. Hood Chemical | Former Chemical Warehouse RI/SC | 81 | | 8.5 | 4444 NW Yeon |
| Jefferson Smurfit | Burgard Industrial Park | 2371 | | 3.7 | 9930 N Burgard |
| Kinder Morgan | GATX, GATX Linnton Terminal, GATX St. Helens Road Facility | 1096 | | 4.2 | 11400 NW St Helens |
| Lakeside Industries | | 2372 | 1155 | 8.4 | 4850 NW Front |
| Linnton Oil Fire Training Grounds | | 1189 | | 3.6 | NW Marina Way |
| Linnton Plywood | | 2373 | | 4.6 | 10504 NW St Helens |
| Mar Com Marine (N Parcel) | L & S Marine, Mar Com Marine Ways, Marine Machine Works (Former), Nichols Marine Ways Inc., Riverside Lumber Co. (Former) | 2350 | | 5.6 | 8790 N Burgard |
| Mar Com (S Parcel) | St. Johns Langley LLP, Brix (current owner), L & S Marine, Mar Com Marine Ways (former owner), Marine Machine Works (Former), Nichols Marine Ways Inc., Riverside Lumber Co. (Former) | 2350 | | 5.8 | 8790 N Burgard |
| Marine Finance | Hendren Tow Boat, REH Inc., Riverside Industrial Park, Advanced American | 2352 | | 5.8 | 8444 NW St Helens |
| McCall Oil | Great Western Chemical, Quadra Chemicals | 134 | | 7.8 | 5550 NW Front |
| McCormick & Baxter | | 74 | | 7 | 6900 N. Edgewater Street |
| NW Pipe | Northwest Pipe Company | 138 | | 3.9 | 12005 N Burgard |
| Oregon Steel Mills | Gilmore Steel Corp. - Rivergate | 141 | | 2.2 | 14400 N Rivergate |
| Owens-Corning Fiberglass | Trumbull Asp, Kingsley Park, Linnton Planing Mill, Paramount Petroleum Site | 1036 | | 3.8 | 11444 NW St Helens |
| Pacificorp | | 5517 | | 11.6 | various |

## DEQ Source Control Decisions
## Current and Potential Upland Sources to the River

### Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| Paco Pumps | | 146 | | 9.6 | 2551 NW 30th |
| PGE Harborton | | 2353 | | 3.2 | NW Marina Way |
| PGE Forest Park | | 2406 | | 8.5 | 4400 Block NW St. Helens Road |
| PGE Station E | | 3976 | | 10.4 | 2635 NW Front Ave. |
| Port of Portland Auto Storage Area (ASA) | Toyota | 2642 | | 5.0 | 10400 Lombard |
| Portland Shipyard | Cascade General, Swan Island Upland Facility, North Channel Ave Fabrication, Berth 311 | 271 | | 8.4 | Swan Island |
| Premier Edible Oils | C & T Quincy Foods (SEE ECSI 2355), Schnitzer Investment Corp. | 2013 | 2355 | 3.6 | 10400 N Burgard |
| Rhone Poulenc | East Doane Lake, Aventis Crop Science, Rhone Poulenc Agricultural Company | 155 | | 7 | 6200 NW St Helens |
| Riverscape | Port of Portland T1S | 2642 | | 10.9 | 2100 NW Front |
| Schnitzer Steel | Schnitzer Steel Part of Industrial Park DEQ Site | 2355 | | 3.8 | 12005 N Burgard |
| Schnitzer Burgard | International Terminals, North Burgard Industrial Park | 5324 | | 3.8 | 12005 N Burgard |
| Schnitzer Kittridge | Asset Recovery, Schnitzer Investment Corp | 2442 | | 8.3 | 4959 NW Front |
| Shaver Transportation | | 2377 | | 8.4 | 4900 NW Front |

## DEQ Source Control Decisions
## Current and Potential Upland Sources to the River

### Site Location Key

Link to map of sites:
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/PortlandHarborMap.pdf

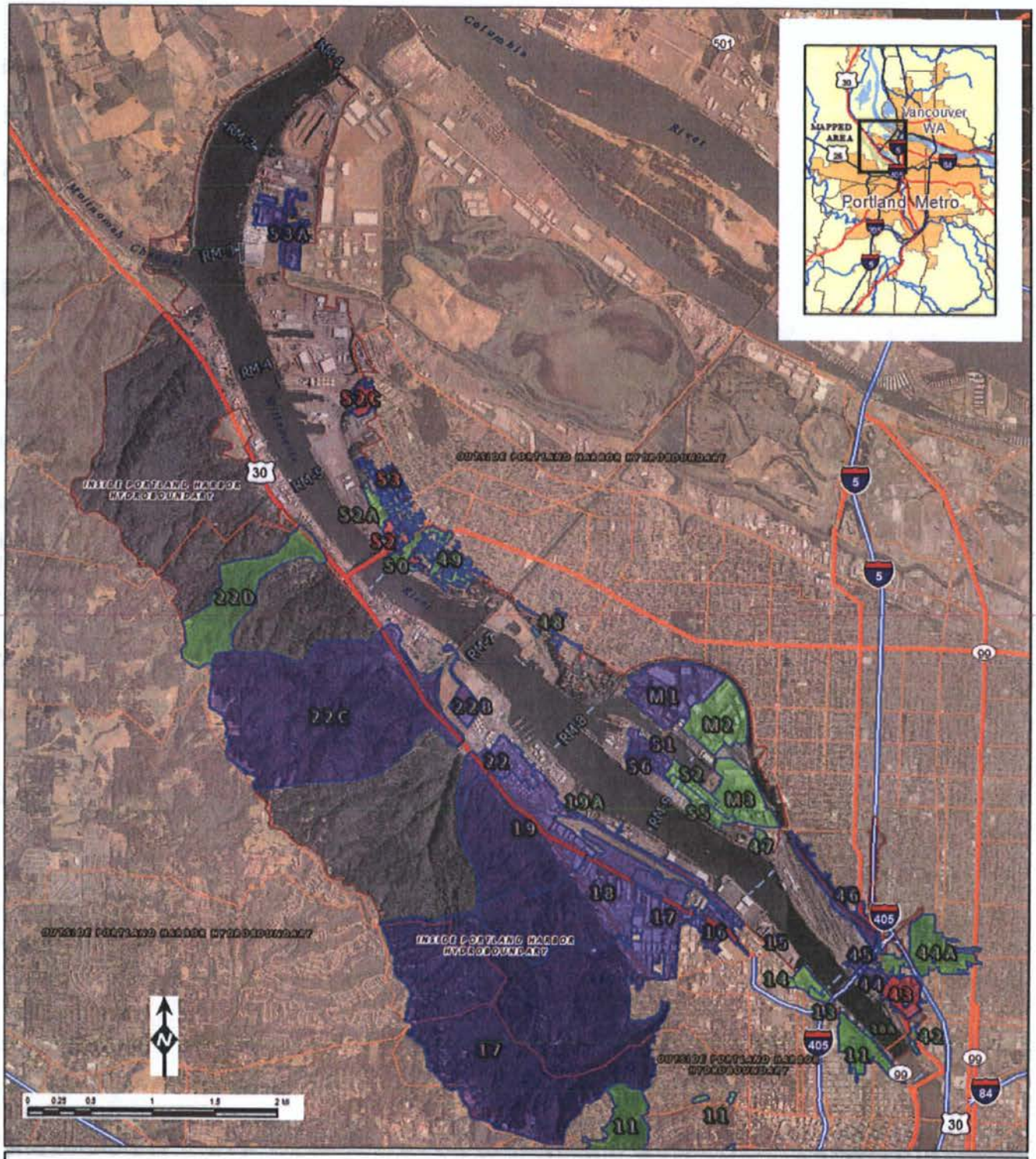
| Site Name | AKA - alternate site names | ECSI # (primary) | ECSI # (secondary) | River Mile | Address |
|---|---|---|---|---|---|
| Siltronic Corp. TCE Investigation | Siltronic Corporation, Walker Siltronic | 183 | | 6.5 | 7200 NW Front |
| Sulzer Pump | Bingham International, Bingham Willamette,, Sulzer Pumps, Inc. | 1235 | | 10.4 | 2800 NW Front |
| Terminal 1 North | BES- Nicolai Shaff | 3377 | | 10.6 | 2200 NW Front |
| Terminal 2 | | 2769 | | 10 | 3556 NW Front |
| Terminal 4 Slip 1 | IRM, Cargill | 2356 | | 4.3 | 11040 N Lombard |
| Port of Portland - Terminal 4 Slip 3 | Hall-Buck Marine Inc., Oregon Terminal Company (OTC), OTC Gearlock Maintenance Facility (Former), Quaker State Oil Co., UPRR - Product Transfer Pipeline (Former) | 272 | | 4.6 | 10400 Lombard |
| Terminal 5 | Oregon Steel Mills Slag Pile, Port of Portland - Terminal 5, Blue Lagoon | 1686 | | 1.5 | 15540, 15550, & 15560 N Lombard |
| TexacoTerminal | Equilon, Shell, Texaco Product Pipeline | 169 | 2117 | 8.7 | 3800 NW St Helens |
| Time Oil (Northwest Terminal) | Bell Terminal | 170 | | 3.4 | 10350 Time Oil Rd |
| Triangle Park (N PDX Yard) | North Portland Yard, Riedel Environmental Services - N Portland Yard, Sakrete of the Pacific Northwest, Inc., Western Pacific Dredging/Drilling/Piledriving/etc., Willamette-Western Company, World Security Services Company | 277 | | 7.5 | 5828 N Van Houten |
| UPRR Albina | Albina Rail Yard, Union Pacific RR - Albina Yard | 178 | | 10.3 | 2745 N Interstate |
| UPRR St Johns Tank Farm | Union Pacific RR - St. Johns Tank Farm, UPRR - Product Transfer Pipeline (Former), UPRR Fuel Loading Facility (Former), Port of Portland Terminal 4 Slip3 | 2017 | | 4.6 | 6908 N Roberts |
| USCG | US Coast Guard - Portland Station | 1338 | | 8.2 | 6767 N Basin Ave. |
| US Moorings | | 1641 | | 6.2 | 8010 NW St. Helens Rd. |
| Willamette Cove | | 2066 | | 6.8 | Foot of N Edgewater |
| Willbridge | Kinder Morgan, Chevron, ConocoPhillips, GATX - Willbridge Terminal, Tosco - Willbridge Terminal, Unocal - Willbridge Terminal | 1549 | | 7.7 | Front Ave & NW Doane |
| Vanwater and Rogers | Univar | 330 | | 9 | 3950 NW Yeon Ave. |
| | | | | | |
| Willamette Cove | | 2066 | | 6.8 | Foot of N Edgewater |
| Calbag Metals | | 5059 | | 10.1 | 2495 Nicholai St. |
| US Navy Reserve | | 5109 | | 8.2 | 6735 North Basin Avenue |
| Shore Terminals | | 5130 | | 5.4 | 9400 NW Saint Helens Rd. |
| | | | | | |

## Status of High Priority Sites

Table 2

| | Site | River Mile | High Priority Pathway | Source Control Evaluation | Selection of Source Control Measure | Implementation of Source Control Measure | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | Oregon Steel Mills | 2.2E | Bank erosion | Complete | -Currently considering re-design incorporating bioengineering based largely on satisfying ESA concerns | -Summer 2011 or 2012 | |
| | | | Stormwater | Complete | -Complete | -End-of-pipe treatment system operating since summer '07.<br>-System expanded in 2008.<br>-Loading evaluation to be conducted in 2010-11 water year. | |
| 2 | City Stormwater Outfalls | Various | Stormwater | Ongoing | -SCMs being selected at individual upland sites | -SCMs being implemented at individual upland sites<br>-Treatment at end of 3 OF basins in '95-'96<br>-Partial/complete diversion of stormwater to WWTP/POTW in 15 basins (work to be completed by 2011)<br>-Ongoing City-wide programmatic source control efforts (see Section 2.1) | -Iterative approach done on basin-by-basin basis.<br>-Objective of SCE is to identify up-pipe sources |
| 3 | Premier Edible Oil | 3.6E | Groundwater | Ongoing (to be determined) | -DEQ is requring a focused feasibility study (FFS) to be performed to support selection of SCM addressing NAPL and groundwater | | -Outstanding nature and extent issues (i.e., SCE) to be addressed in FFS |
| 4 | Schnitzer Burgard Industrial Park | 3.8E | Stormwater | Ongoing (TBD) | | | -SCE complicated by property ownership |
| | | | Overland Transport | Ongoing (TBD) | | | -SCE complicated by property ownership |
| 5 | Schnitzer Steel | 4.0E | Stormwater | Ongoing (4th Qtr '11) | -Stormwater capture, re-use, end-of-pipe treatment sytem installed in 2009 | | -Stormwater management system to be expanded |
| | | | Overland Transport | Ongoing (4th Qtr '11) | -Asphalt berm constructed in 2009 along 925' of landward edge of Schnitzer dock to help prevent overland runoff to slip | | |
| 6 | Kinder Morgan (former GATX) | 4.2W | Groundwater | Ongoing (1st Qtr '11) | -GW pump & treat system in-place<br>-SCE designed to enhance existing interim GW CSM<br>-FFS for barrier wall being prepared | | |
| 7 | BP/Arco | 4.8W | Groundwater | Complete | -Barrier wall & enhanced GW pump & treat system in-place<br>-Riverbank & nearshore sediment removal completed fall '08 | -RP started SCM in summer '07 Fish Window & completed work in fall '08 removing 16,000cy of contaminated soil/sediment. | |
| 8 | Exxon/Mobil | 5.1W | Groundwater | Complete | Complete | Complete | -SCM selected in 1997 DEQ ROD. Onging SCM.<br>-Further SCMs (enhancement) are being studied |
| 9 | MarCom South | 5.8E | Overland Transport | Currently reviewing revised SCE | | | -RP removed sand blast grit piles in fall '08 as part of "housekeeping" effort |
| 10 | Gasco | 6.4W | Groundwater | Complete | -SCM Eval report (FFS) submitted 10/07<br>-Draft interim Design Report submitted 11/09<br>-Currently in Formal Dispute Resolution regarding next step in SCMs | | -See Section 5.0 of text |
| | | | Bank erosion | Complete | -Coordinate with in-water Early Action | | In-water Early Action AOC with EPA signed 9/09 |
| 11 | Gasco (Siltronic) | 6.6W | Groundwater | -SCE received '09, preliminarily reviewed & deferred | -SCE FFS for Gasco considers this pathway | | -Gasco MGP waste on the Siltronic property |
| 12 | Siltronic | 6.5W | Groundwater | Complete | -SCM Eval report (FFS) submitted 10/07<br>-Enhanced in-site bioremediation (EIB) SCM applied fall '08.<br>-EIB supplemental work in '09 & '10 | -EIB also applied in source area<br>-SCM effectiveness monitoring ongoing | |
| 13 | Rhone Poulenc | 7.0W | Groundwater | Ongoing (4th Qtr '10) | -RP recently completed long-term pilot testing for potential pump & treat SCM. | | -Comprehensive SCE Report due October 2010 |
| 14 | Arkema | 7.2W | Groundwater | Complete | -Revised FFS for barrier wall & hydraulic received 2008.<br>-DEQ selected wall/extraction well SCM in 200 | -Arkema submitted a draft design for the well/wall SCM in 2010. DEQ provided comments.<br>-Well/wall SCM is in final design<br>-SCM scheduled to begin 2011 | -RP implemented series of pilot & full-scale SCMs |
| | | | Stormwater | Complete | -Stormwater SCM in design & permitting | -SCM construction scheduled to begin 2011. | |
| | | | Bank erosion | Complete | | | -To be integgrated into in-water Early Action |
| 15 | Willbridge | 7.7W | Groundwater | Complete (except for deep GW) | Complete | Complete | -Ongoing GW pump & treat SCMs<br>-Further SCM ehancements are being studied |
| 16 | Gunderson | 9.0W | Groundwater | Ongoing (1st Qtr '11) | | | -Ongoing GW pump & treat SCM in Area 1 |
| | | | Stormwater | Ongoing (2nd Qtr '11) | | | |
| | | | Bank erosion | Ongoing (1st Qtr '11) | | | |
| | | | Overland runoff | -TDB, pending DEQ review of RI Report | | | |

Notes: 1) Date in parentheses is expected date of completion
2) Source Control Evalaution (SCE)




# *Figure 1:* Status of Source Identification in City Stormwater Basins (August 2010)

Outfall basin status of source identification
- No Significant Sources in Basin and Insignificant or Incomplete Pathway
- Source Identification in Basin is Complete
- Additional Source Identification Needed or May be Needed in Basin

Base imagery 2009 from USDA NAIP photography.
Outfalls, outfall basins, and hydro boundary from City of Portland Bureau of Environmental Services.
Taxlots from Metro RLIS.

DEQ
State of Oregon Department of Environmental Quality

RM-1
RM-2
RM-3
RM-4
Rivergate Industrial Park
Terminal 5
Port of Portland
Blue Lagoon - Marine Terminal 5
Consolidated Metco Inc.
Ro-mar Rlty of OR Inc.
Metco Inc.
South Rivergate Industrial Park
Evraz Oregon Steel Mills Inc.
Steelmill Warehouse LLC
JR Simplot Co.
P. O. P.
Ash Grove Cement Co.
TOC Holdings Inc.
Portland General Electric Co.
P.O.P. (leased)
St. Johns - Keeler #2 Right-Of-Way
Millican Properties LLC
Lampros Properties LLC
Schnitzer Invest. Corp.
RL R Invest. LLC
Northwest Pipe Co.
Smurfit-Stone Container
Schnitzer Steel Industries Inc.
Walters Douglas J
Schnitzer Invest. Corp.
P.O.P.
P.O.P. (leased)
UPRR
Terminal 4
Slip 1
Slip 3
International Terminals Slip
Linnton
Babcock Land Co. LLC
RK Storage & Warehousing Inc.
Olympic Pipeline Company
Kinder Morgan Liquids Terminals LLC
Owens-Corning Fiberglas Corp.
Knife River Corporation
ACF Industries Inc.
Portland General Electric Co.
Linnton Oil Fire Training
Alder Creek Lumber Co. Inc.
Frevach Land Co.
ESCO Landfill - Sauvie Island

Upland (ECSI) Site
Basin Boundary
*Site/Vicinity Parcels
River Miles
Navigation Channel
River Edge + 13 ft NAVD

Outfalls
Outfall
Dock Drain
Roof Drain

Bridges
Docks and Structures
Waterfront Taxlots

Generalized Zoning
Commercial
Industrial
Multi Family
Mixed Use Employment
Mixed Use Residential
Parks & Open Spaces
Rural
Single Family

*Site/Vicinity Parcels:
Parcel ownership outlines on or in the vicinity of ECSI Sites or near the waterfront. Sites were labeled or outlined within the basin and within a mile of the river between river mile 2 and 11.

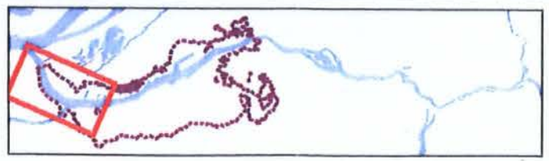
integral consulting inc.

LWG
LOWER WILLAMETTE GROUP

N

0 1,000 2,000 Feet

FEATURE SOURCES:
Transportation, Property, Zoning, or Boundaries: Metro RLIS.
Channel & River Miles: US Army Corps of Engineers.
Bathymetric Information: David Evans and Associates, Inc.
ECSI and Outfall Locations: City of Portland, 2008.



**DRAFT**
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**Figure 2 - a**

Land Zoning and Ownership

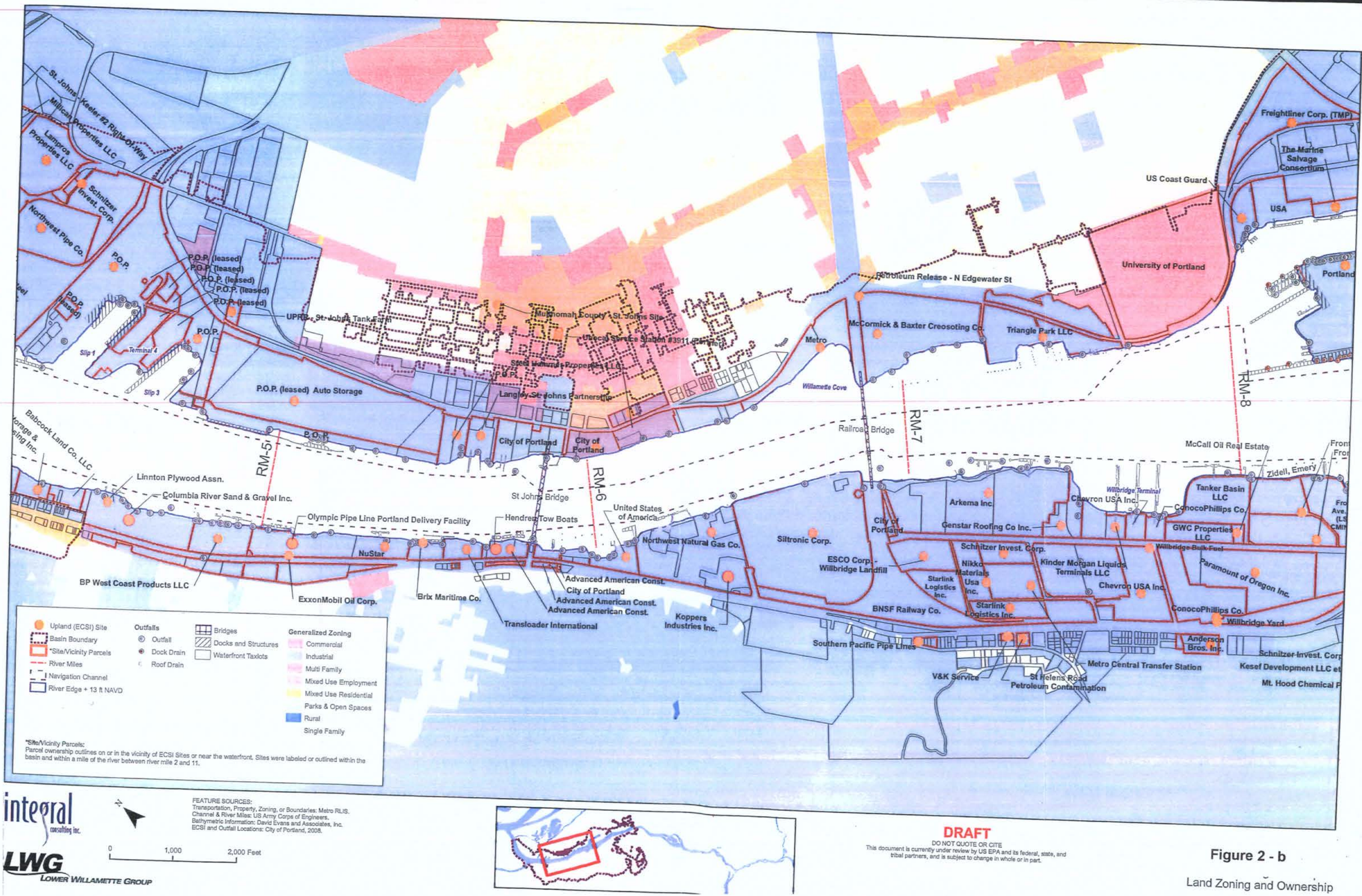


**Figure 2 - b**

Land Zoning and Ownership

Roadway Express
Mocks Bottom
Freightliner Corp. (TMP)
North Basin Watumull LLC
Basin ST. Assoc
Fred Meyer - Swan Island
The Marine Salvage Consortium
ATC Leasing Co.
Becker Land LLC
Freightliner Corp.(PMP)
Freightliner Corp.
City of Portland
US Coast Guard
P. O. P.
USA
Swan Island Lagoon
Freightliner Corp.
Anchor Park LLC
Automatic Vending
P.O.P.
P. O. P.
City of Portland
University of Portland
Crosby & Overton
Portland Shipyard LLC
P.O.P. (leased)
Vigor Industrial LLC
P. O. P.
RM-8
RM-9
RM-10
RM-11
Nurnberg Scientific Co.
Mammal Survey & Control Service
Industrial Battery Building
Oregon Washington Railroad & Navigation Co. (UPRR Albina Yard)
UPRR - Albina Yard
Tarr Inc.
Cascade Brake Products
Valvoline
Master Chemical Inc.
Ash Grove Cement Co.
Herman, Stan
Sakrete of Pacific NW
Vermiculite Northwest Inc. (Former)
Tucker Building
Union Pacific Railroad
Fremont Bridge
Union Station Agricultural Marketing Center Site
Willamette River Westside CSO Construction
Sulzer Pumps (US) Inc.
City of Portland
Waterfront Pearl Condominiums Construction Site
Apollo Dev. Inc.
Ralston, TR
P. O. P.
Terminal 2
Dolan and Co. LLC
Balch Creek Cove
Ralston, Tim
Riverscape LLC
Union Station Horse Barn
Pearl Building
Hoyt St. Railyard (Former)
Sause Bros. Inc.
Williams, Cindy
Dasic International Corp.
Irvjoy 3rd Generation Corp.
Front Avenue MP
Zehrung Corp. (Former)
Gender Machine Works, Inc.
Wilbur-Ellis Co.
RiverTec Property
Equilon Enterprises LLC
Gunderson LLC
Hercules Inc.
McCall Oil Real Estate
Front Ave. LP (LSD Glacier NW)
Front Ave. LP (LSD Tube Forgings)
Zidell, Emery
Shaver Transportation Co.
Portland Terminal Railroad Co. (B.N.S.F. Lake Yard)
Longview City Laundry & Cleaners
Guilds Lake
Willbridge Terminal
Chevron USA Inc.
Tanker Basin LLC
ConocoPhillips Co.
Front Ave. LP (LSD CMINW)
Lakeside Industries
Texaco Product Pipeline
Nudelman & Son Inc.
GWC Properties LLC
Gundersen LLC
Zidell, Emery
Chapel Steel
Wirds Don
Mogul Corp.
General Electric Co.
Willbridge Bulk Fuel
Dura Industries
Container Recovery
Owens-Corning Fiberglas Corp.
Hill Investment Co.
Mt. Hood Chemical Corp.
Cornerstone Property
Mogul Corp.
Paco Pumps
Galvanizers Co.
Paramount of Oregon Inc.
Van Waters & Rogers Inc.
ANRFS Holdings Inc.
Carson Oil - NW 35th AVE
Chevron USA Inc.
ConocoPhillips Co.
Willbridge Yard
Equilon Enterprises LLC
Wilhelm Trucking
Lakea Corp.
Container Management Services
Anderson Bros. Inc.
HAJ Inc.
Schnitzer Invest. Corp.
Kesef Development LLC et al.
Brazil & Co.
Armstrong Disposal Company
Magnus Co.
Metro Central Transfer Station
Mt. Hood Chemical Property
PGE - Forest Park Property

Upland (ECSI) Site
Basin Boundary
*Site/Vicinity Parcels
River Miles
Navigation Channel
River Edge + 13 ft NAVD

Outfalls
Outfall
Dock Drain
Roof Drain

Bridges
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Waterfront Taxlots

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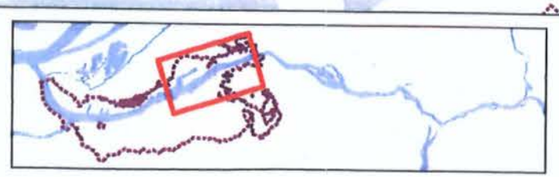

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**Figure 2 - c**

Land Zoning and Ownership

# Update on Stormwater Source Control at the Portland Harbor Superfund Site

## September 2010

Prepared by the Oregon Department of Environmental Quality


State of Oregon
**Department of Environmental Quality**

This document is posted on DEQ's web page at
http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

If you have questions or comments regarding the information in this report, please direct them to Karen Tarnow, Portland Harbor Stormwater Coordinator at DEQ (503-229-5988).
tarnow.karen.e@deq.state.or.us

## 1.0 Introduction

DEQ is responsible for controlling upland sources of contamination to Portland Harbor on a schedule that ensures cleanup of the river can proceed with minimal risk of recontamination. This document describes DEQ's strategy for achieving this objective for the stormwater pathway, the status of stormwater source control at upland sites and the timeline for completing this work. In addition, Attachment A describes a tool DEQ developed for evaluating stormwater data.

### 1.1 Potential Sources of Stormwater Contaminants

There are two types of contaminant sources at upland sites. One type of source is contaminated media (e.g., soil, groundwater, pavement, etc.) that results from historical releases of hazardous substances. This is sometimes called *legacy contamination.* Legacy contamination can be caused by legacy *contaminants* that have been banned for general use, such as PCBs and DDT, but can also be caused by contaminants currently in use, such as various metals and petroleum-related substances. We use the term "legacy" because most often this contamination resulted from past practices and/or releases.

The other type of contaminant source is a result of the day-to-day activities that take place at a site. Many kinds of activities have the potential to result in minor releases of contaminants, such as zinc released by the wear and tear on tires and brake pads, phthalates off-gassing from paints and PVC piping, and petroleum products in drips of oils, greases and fuels used for vehicles and machinery.

Effective stormwater source control is based upon an understanding of the types and sources of contamination at a site. This information is used to determine the appropriate tools to prevent or minimize the potential for contaminants to become entrained in stormwater runoff.

### 1.2 Preventing Stormwater Contamination

There are many programs and efforts underway that are designed to eliminate or control contaminant sources and minimize the potential for stormwater to come into contact with contaminants. These include stormwater permits and implementation of best management practices (BMPs), hazardous waste regulations, toxics use reduction initiatives, the City of Portland's Stormwater Management Manual and Green Streets initiatives, etc. These programs do the lion's share of the work of preventing stormwater contamination, and have been widely practiced for years and even decades in some instances. As a result, present-day stormwater discharges are *much* cleaner than in years past.

That said, there are certain sites where a higher level of investigation, regulation and oversight may be needed to achieve source control objectives. This is the focus of DEQ's comprehensive stormwater strategy for Portland Harbor.

## 2.0 DEQ's Comprehensive Stormwater Strategy for Portland Harbor

DEQ's objectives for stormwater source control are (1) to identify and address stormwater discharges containing elevated contaminant concentrations, and (2) to ensure future stormwater discharges will not recontaminate harbor sediments. DEQ draws upon its Cleanup and Water Quality authorities to accomplish these objectives. This is how they are being applied:

### 2.1 Identify and address contaminated stormwater discharges[1]

DEQ's Cleanup Program identifies and addresses sites with contaminated stormwater discharges to minimize the potential for contaminants to migrate to the river via the stormwater pathway. This approach involves consideration of several lines of evidence to determine where source control is needed and when it has been achieved. These procedures are described in DEQ's *Guidance for Evaluating the Stormwater Pathway at Upland Sites* (http://www.deq.state.or.us/lq/cu/stmwtrguidance.htm).

The guidance is currently being updated to clarify certain policies and procedures and to include a screening tool for stormwater data (see Attachment 1 for a description of the tool). The screening tool is used to help distinguish stormwater containing elevated contaminant concentrations from stormwater that represents "typical" industrial runoff. Elevated contaminant concentrations are an indication that contamination may be present at the site and that additional investigation and source control may be needed.

DEQ will issue a Stormwater Source Control Decision (SCD) when it determines that contaminant sources at the site have been controlled as necessary to minimize potential for contaminant migration to the river via stormwater discharge, and that the resulting discharge is not likely to contaminate in-river sediments.

Stormwater is a unique contaminant pathway for the Cleanup Program to address because releases of certain types of contaminants are *expected* to continue, at some level, due to the nature of industrial operations and other human activities. Whereas the Cleanup Program typically focuses on contaminated media (e.g., soil, sediment, groundwater), these ongoing, incidental releases are commonly managed through Water Quality programs and permits to ensure that stormwater discharges don't result in unacceptable environmental impacts.

For this reason, a Stormwater SCD from DEQ's Cleanup Program does not confer the same degree of finality as a SCD for other contaminant pathways (e.g., groundwater, bank erosion) or a No Further Action (NFA) determination. There is an expectation that appropriate stormwater management measures will continue to be implemented and that water quality regulations and programs will be applied as necessary to ensure adequate measures are being taken to achieve

[1] Some industrial sites operate under a stormwater permit that requires certain stormwater control measures. However, these permits do not address all of the contaminants that are most problematic in Portland Harbor and may not be sufficient to address the Portland Harbor cleanup goals. Therefore, a stormwater permit does not necessarily preclude the need for additional evaluation and source control.

environmental objectives. Thus, a Stormwater SCD from the Cleanup Program should be considered a milestone in the stormwater source control process rather than an endpoint.

### 2.2 Manage future stormwater discharges with Water Quality programs and permits

As mentioned above, there is a wide array of regulatory and non-regulatory programs that directly or indirectly help to minimize the potential for stormwater to come into contact with contaminants. Before cleanup of the river can proceed, there needs to be a high degree of confidence that these efforts, in total, sufficiently minimize the potential for stormwater discharges to recontaminate the harbor sediments. This requires an understanding of the load of contaminants being discharged into the river in spite of all the source control and stormwater management efforts, and the fate and transport of contaminants in the river.
This evaluation will depend in part on modeling and other analyses being conducted as part of the Portland Harbor Remedial Investigation/Feasibility Study (e.g., loading evaluation, modeling results, cleanup goals). Much of this information should be available, at least in draft form, by spring 2011. DEQ is also looking into simple recontamination models to complement these efforts.

If the evaluation determines that stormwater poses a recontamination risk, one or more of the following things may happen.

a) DEQ could revisit certain SCDs and/or expand its source control evaluation efforts to include additional sites (i.e., those currently considered to be lower priority sites) with the goal of "ratcheting back" on the contaminant load being discharged into the river.
b) DEQ could issue a more stringent industrial stormwater general permit[2], require additional facilities to obtain coverage under the general permit, and/or issue individual stormwater permits to facilities where a more protective permit is necessary to prevent recontamination.
c) The City could improve or expand its stormwater pollution prevention efforts to better address the sources or drivers of recontamination risk.

The results of the evaluation will help DEQ determine which of these actions – or potentially other actions not listed above – are the most appropriate measures to take to minimize the recontamination risk. If additional actions are needed, the objective would be to have them implemented before or shortly after EPA issues the Record of Decision for Portland Harbor. After the Portland Harbor Record of Decision (ROD) is issued and Remedial Design begins, stormwater discharges within or adjacent to Sediment Management Areas may undergo additional scrutiny. If existing controls are found to be inadequate to prevent recontamination,

[2] Certain industry types are required to obtain an Industrial Stormwater General Permit from DEQ (aka the 1200Z permit, administered in Portland by the City's Bureau of Environmental Services). The permit creates a mechanism for providing ongoing oversight of stormwater management practices and evaluating the effectiveness of these practices. If the discharge cannot be adequately controlled by the 1200Z general permit, DEQ can require a facility to obtain a customized "individual" stormwater permit. Information on these permits and the industries required to obtain a permit can be found here: http://www.deq.state.or.us/wq/stormwater/industrial.htm DEQ's Water Quality Program is in the process of revising the 1200Z and expects to propose a revised permit in summer 2011. Once this permit is drafted, DEQ can begin to evaluate its effectiveness for Portland Harbor.

site-specific stormwater treatment technologies and/or customized stormwater permits may be required at sites of concern.

## 3.0 Timeline for Accomplishing Stormwater Source Control Objectives

Figure 1 shows an approximate timeline for DEQ to accomplish its source control objectives. With the possible exception of a small number of complex sites, DEQ expects to have stormwater source control completed by the time that EPA issues the Portland Harbor ROD.

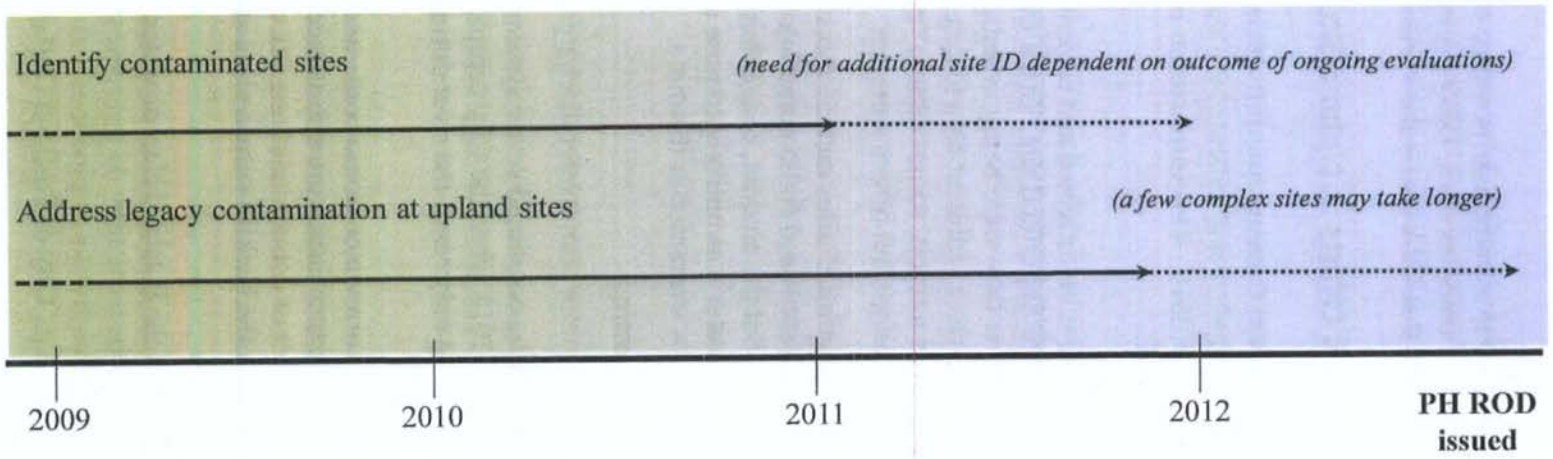
## 4.0 Status of Stormwater Source Control Efforts at Upland Sites

Table 1 lists all of the sites in DEQ's Environmental Cleanup Site Information (ECSI) database located within the Portland Harbor watershed boundary and indicates the status of stormwater source control efforts at each site as of September 2010. This information is also presented in Figure 2. A few notes regarding this status report:

- A number of ECSI sites shown on the map were investigated and remediated prior to the initiation of work on the Portland Harbor Superfund site. Since these sites did not undergo a stormwater evaluation at the time they were being investigated, DEQ reviewed the file information and adjacent in-river sediment data to determine whether additional evaluation was needed. As a result, some of these "closed" sites were asked to undertake source control evaluations but others were not.
- "Lower Priority – Need for SCE To Be Determined" sites include those where there is evidence to suspect that contamination is present and could come into contact with stormwater or stormwater conveyances, but the amount, concentration and/or potential for contaminant migration in stormwater was unlikely to pose a significant threat and therefore additional evaluation is not warranted at this time.
- "Insignificant Pathway" sites include the following:
    - sites that have no or very infrequent, minor stormwater discharges
    - sites where stormwater discharges to the combined sewer system (or *will* discharge to the system by the end of 2011 when the City completes its reengineering of the system) and could only reach the river during an overflow event
    - sites where there is no evidence that stormwater would come into contact with contamination on the site (e.g., contaminants are subsurface and there is no potential for exposure to stormwater or contaminant migration to the river via infiltration into or advection along the backfill surrounding stormwater pipes)
- A small number of ECSI sites that fall within the Portland Harbor watershed boundary have not been depicted on the map because they do not represent true "sites." Examples include a few spills along highways or pipelines and ECSI sites that represent Study Areas rather than sites (e.g., City of Portland Outfalls; Portland Harbor Sediments).

**Figure 1: Timeline for achieving stormwater source control in Portland Harbor.**

**Controlling sources:**




**Managing future discharges:**

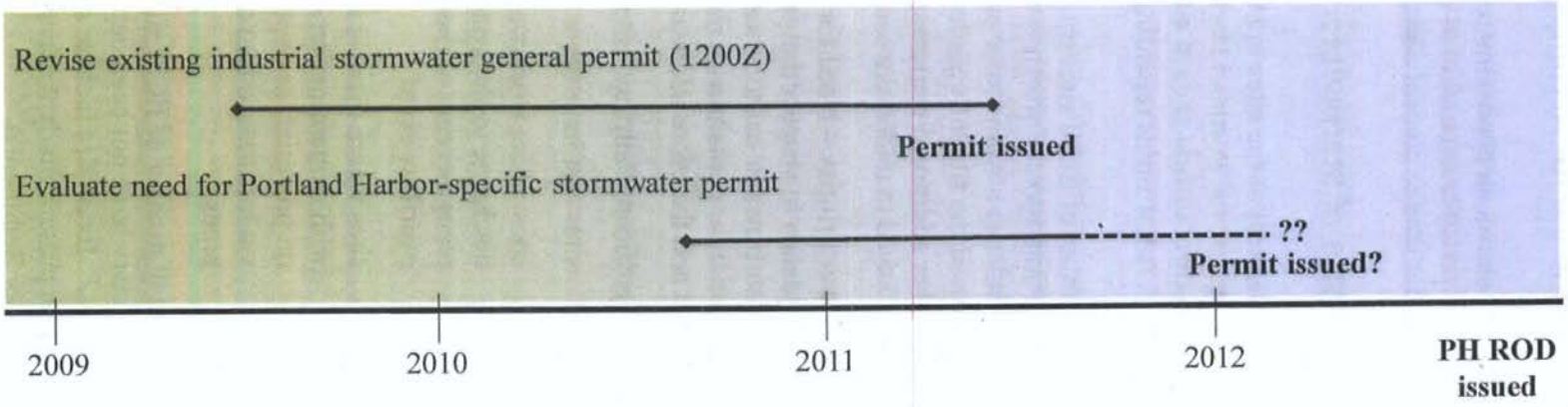


**Table 1: Status of Stormwater Source Control Evaluations at ECSI Sites**

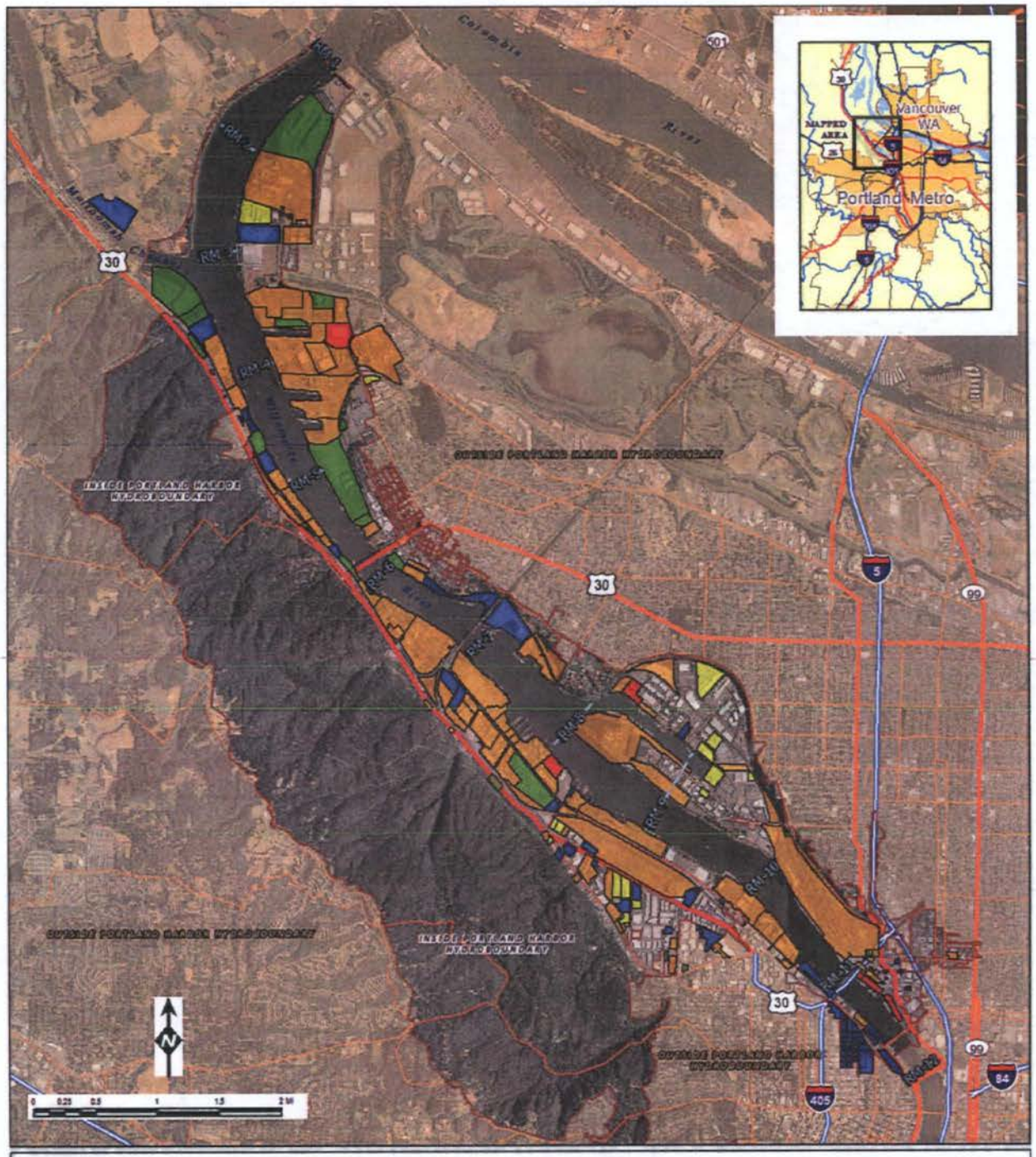
| Stormwater SCE Needed (6) | ECSI # |
|---|---|
| Cargill (Albina River Lots) | 9997 |
| Glacier (Albina River Lots) | 9998 |
| Glacier NW [Front St.] | 2378 |
| Lampros Steel | 2441 |
| Ross Island (Albina River Lots) | 9999 |
| US Navy And Marine Reserve Center | 5109 |
| **Stormwater SCE Underway (59)** | |
| Air Liquide/Schnitzer Investment - Doane Lake | 395 |
| Arkema | 398 |
| Boydstun Metal Works Inc | 2362 |
| Brix/Foss Maritime | 2364 |
| Burlington Northern Hub Center And Lake Yard | 100 |
| Calbag Metals - Nicolai | 5059 |
| Calbag Metals [Front St.] | 2454 |
| Centennial Mills | 5136 |
| Chevron Products Company | 25 |
| Chevron U.S.A., Inc. | 1549 |
| Christenson Oil | 2426 |
| Columbia American Plating | 29 |
| Conoco Phillips Tank Farm | 177 |
| Consolidated Metco, Inc. | 3295 |
| Container Management Services LLC | 4784 |
| Crawford Street | 2363 |
| ExxonMobile Oil Corporation | 137 |
| Fred Devine Diving & Salvage Inc | 2365 |
| Freightliner, LLC | 115 |
| Freightliner, LLC | 2366 |
| Galvanizers Company | 1196 |
| General Electric Ser Shop | 4003 |
| GS Roofing Products, Inc. | 117 |
| Gunderson Inc. | 1155 |
| Kinder Morgan Liquid Terminals LLC | 1096 |
| Koppers Industries, Inc. | 2348 |
| Lakeside Industries | 2372 |
| McCall Oil | 134 |
| Metro Central Transfer Station | 1398 |
| Mt. Hood Chemical Corporation | 81 |
| Northwest Natural Gas Company | 84 |

| | | |
|---|---|---|
| | Northwest Pipe Company | 138 |
| | Oregon Steel Mills - Rivergate | 141 |
| | Owens Corning - Linnton | 1036 |
| | PacifiCorp Albina Riverlots | 5117 |
| | Port of Portland - Terminal 1 North | 3377 |
| | Port of Portland - Terminal 2 | 2769 |
| | Port of Portland - Terminal 4 | 272 |
| | Port of Portland - Terminal 4, Slip 1 | 2356 |
| | Portland Ship Yard [Cascade General And Port Properties] | 271 |
| | Premier Edible Oils | 2013 |
| | Rhone Poulenc | 155 |
| | Schnitzer Steel | 2355 |
| | Schnitzer Burgard Industrial Park | 5324 |
| | Shell Oil Co. - Willbridge Plant | 160 |
| | Shore Terminals LLC | 1989 |
| | Siltronic [Wacker Siltronic Corporation] | 183 |
| | Sulzer Pumps | 1235 |
| | Texaco Portland Terminal | 169 |
| | Time Oil | 170 |
| | Triangle Park - North Portland Yard | 277 |
| | Tube Forgings of America, Inc. | 1239 |
| | Union Carbide Corp. [NW Container] | 176 |
| | Univar [Van Waters and Rogers] | 330 |
| | UPRR Albina Site | 178 |
| | US Moorings [US Army COE] | 1641 |
| | USCG Dock | 1338 |
| | Wilhelm Trucking [Magnus] | 69 |
| | Willbridge Yard | 3395 |
| **Stormwater SCE Complete; Source Control Decision Pending (3)** | | |
| | Arco Bulk Terminal | 1528 |
| | Mar Com, Inc. - South Parcel | 2350 |
| | PGE - Forest Park Property | 2406 |
| **Stormwater Source Control Decision Issued (16)** | | |
| | ACF Industries | 794 |
| | Anderson Bros. Property | 970 |
| | BES Water Pollution Control Facility | 2452 |
| | Blue Lagoon - Marine Terminal 5 | 1686 |
| | Chevron Asphalt | 1281 |
| | Jefferson Smurfit Corporation | 2371 |
| | Linnton Plywood Association | 2373 |
| | Mar Com, Inc. - North Parcel | 4797 |

| | |
|---|---|
| Marine Finance Co. | 2352 |
| Oil Fire Training Ground | 1189 |
| Paco Pumps | 146 |
| PGE - Harborton Substation | 2353 |
| Port of Portland - Terminal 4 Auto Storage | 172 |
| Ro-Mar Transportation Systems Inc | 2437 |
| SFI, Inc. | 5103 |
| UPRR – St. Johns Tank Farm | 2017 |
| **Lower Priority - Need for Stormwater SCE TBD (18)** | |
| Ashland Chemical Inc | 1076 |
| Borden Chemical, Inc. | 1277 |
| Brazil & Co. | 1026 |
| Carson Oil Co., Inc. | 1405 |
| Color Magic Inc | 1328 |
| Container Recovery, Inc. | 4015 |
| Dura Industries Inc | 111 |
| End of Swan Island Lagoon | 3901 |
| Estey Corporation | 1430 |
| Federal Express | 3807 |
| Fred Meyer - Swan Island | 44 |
| GI Trucking | 1840 |
| Jinkz Corp | 2423 |
| JR Simplot | 3343 |
| Office Depot | 260 |
| Portland Container Repair Corporation | 2375 |
| Santa Fe Pacific Pipelines | 2104 |
| Trumball Asphalt [Owens Corning Yeon] | 1160 |
| **Insignificant Pathway - Minimal stormwater runoff (8)** | |
| Ash Grove Cement - Rivergate Plant | 4696 |
| Goldendale Aluminum Company | 2440 |
| GPC Linnton | 333 |
| Hercules Incorporated | 988 |
| Nudelman & Son Inc. | 966 |
| Port of Portland Tract O Property | 5307 |
| Union Station - Track #5 | 1414 |
| Willamette Cove | 2066 |
| **Insignificant Pathway - Stormwater captured/to be captured by combined/sanitary system (4)** | |
| Babcock Land Company | 2361 |
| Cascade Brake Products | 1019 |
| RK Storage And Warehousing | 2376 |
| Unocal SS 3911 | 1593 |

| | | |
|---|---|---|
| **Insignificant Pathway - Redeveloped under COP stormwater manual (5)** | | |
| | ANFRS Holdings/ABF Freight Systems | 1820 |
| | Greenway Recycling | 4655 |
| | Penske Truck Leasing | 5055 |
| | Waterfront Pearl Cond. Construction Site | 4535 |
| | Westinghouse | 4497 |
| **Insignificant Pathway - No evidence of contaminated stormwater (20)** | | |
| | Albers Mill Property | 4590 |
| | Chapel Steel Inc | 4920 |
| | Dasic International Corp. | 110 |
| | Eastman Chemical Company | 135 |
| | ESCO Corp. - Willbridge Landfill | 397 |
| | Front Avenue Mp | 4008 |
| | Glacier Northwest Inc. Linnton | 2351 |
| | Gould, Inc | 49 |
| | Hoyt St. Railyard (Former) | 1080 |
| | Industrial Battery Building | 935 |
| | Kittridge Distribution Center | 2442 |
| | Master Chemical Inc. | 1302 |
| | Mogul Corp. | 1307 |
| | Pearl Building | 4960 |
| | Port of Portland - Terminal 1 South | 2642 |
| | Schnitzer Investment - Near NW 35th And Yeon | 2424 |
| | Shaver Transportation Co | 2377 |
| | Transloader International Company, L.L.C. | 2367 |
| | Tucker Building | 3036 |
| | Valvoline Inc | 3215 |
| **No pathway for site COIs (e.g., groundwater site; capped sites) (16)** | | |
| | ESCO Landfill – Sauvie Island | 4409 |
| | Guilds Lake - NW Industrial St. | 404 |
| | Hoyt St Train Yard - Parcel 1 | 1624 |
| | King-Ries Property | 4560 |
| | Longview City Laundry & Cleaners Inc | 1395 |
| | Lynden Farms | 4461 |
| | McCormick & Baxter Creosoting Co. | 74 |
| | Morse Bros. | 2370 |
| | ODA Laboratory Services | 1962 |
| | PGE - Substation E | 3976 |
| | St. Johns - Keeler #2 Right-of-Way | 1067 |
| | Tarr Inc | 1139 |

| | | |
|---|---|---|
| | Union Station - Parcel B South | 1885 |
| | Union Station Horse Barn | 2407 |
| | USPS - Fleet Operations | 2183 |
| | WR Grace Co. | 2761 |
| **Not a true site - Not shown on map (12)** | | |
| | City of Portland Outfalls | 2425 |
| | Crosby & Overton | 877 |
| | Diesel Release - N Edgewater | 1345 |
| | Doane Lake Study Area | 36 |
| | Forest Park Drainage Tunnel, Former | 3301 |
| | Mocks Bottom | 1306 |
| | Portland Delivery Facility | 3342 |
| | Portland Harbor Sediments | 2068 |
| | South Rivergate Industrial Park | 2980 |
| | St Helens Road Petroleum Contamination | 2630 |
| | Texaco Product Pipeline | 2117 |
| | Union Chemical | 329 |
| **Outside Portland Harbor Watershed - Not shown on map (8)** | | |
| | Alder Creek Lumber Co., Inc. | 2446 |
| | Flint Inc. | 1753 |
| | Graphic Arts Center | 187 |
| | Harsh Investments | 878 |
| | Klix Corp of Oregon | 1075 |
| | Multnomah County - St. Johns Site | 2421 |
| | ODEQ Clean Up Sylvan Cleaners Site | 1897 |
| | Zehrung | 187 |




## *Figure 2:* Status of Stormwater Source Control at Portland Harbor ECSI Sites (August 2010)

Source Control Evaluation Needed
Source Control Evaluation Underway or Complete, Source Control Decision Pending
Source Control Decision Issued
Lower Priority - Need for Source Control Evaluation to be Determined
Insignificant Pathway

Base imagery 2009 from USDA NAIP photography.
Outfalls, outfall basins, and hydro boundary from City of Portland Bureau of Environmental Services.
Taxlots from Metro RLIS.

DEQ
State of Oregon Department of Environmental Quality

A more detailed version of this map, showing ECSI site numbers and outfall locations, will be available on DEQ's website at http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm

## Attachment 1: Evaluating Stormwater Data

DEQ developed a series of charts to assist with the evaluation of stormwater data. The charts were created using contaminant concentration data from stormwater samples collected at Portland Harbor-area industrial sites. They are intended to be used as a screening tool for distinguishing "typical" industrial stormwater from stormwater containing potentially elevated contaminant concentrations. The charts will be presented in Appendix E of DEQ's *Guidance for Evaluating the Stormwater Pathway and Upland Sites* and will be available on DEQ's website in October 2010 at: http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/stormwater.htm.

### 1.0 Basis for Using the Charts as a Screening Tool

The use of these charts as a screening tool is based on the premise that many kinds of industrial materials and activities have the potential to result in minor releases of contaminants, such as petroleum products in drips of oils, greases and fuels used for vehicles and machinery, phthalates off-gassing from paints and PVC piping, and zinc from galvanized building materials. Off-site sources, including highway traffic, operations at neighboring sites and atmospheric deposition, can also contribute to the contaminant load in stormwater runoff from a site.

As a result, industrial stormwater is likely to contain a somewhat predictable list of contaminants within a predictable concentration range even when good stormwater management practices are being implemented. If contaminant concentrations exceed these ranges, DEQ considers this to be a potential indicator of an uncontrolled source of contaminants at the site.

Some might question this rationale because all of the data used to create the charts were collected at contaminated or suspect sites and therefore would be expected to be more contaminated than typical industrial stormwater. DEQ considered this issue but considers it to be immaterial for two reasons. First, contaminated sites are likely to be contaminated by a few site-specific chemicals, and therefore stormwater would only show elevated concentrations of those specific contaminants and only if they were exposed to stormwater. All of the other contaminants would be expected to be present in stormwater at "typical" concentrations.

Second, as a screening tool, the charts are simply intended to identify sites that "stand out from the crowd." This information helps DEQ determine the need for additional evaluation or source control at a site. Since the charts are not used for directly evaluating potential waterbody impacts from the stormwater, the upper and lower bounds of the "typical" concentration range are not particularly relevant.

Due to the highly variable nature of stormwater, interpretations made using these charts should only be considered in the context of other lines of evidence and should not be presumed to provide conclusive evidence of the presence or absence of contamination at a site.

### 2.0 Chart Development

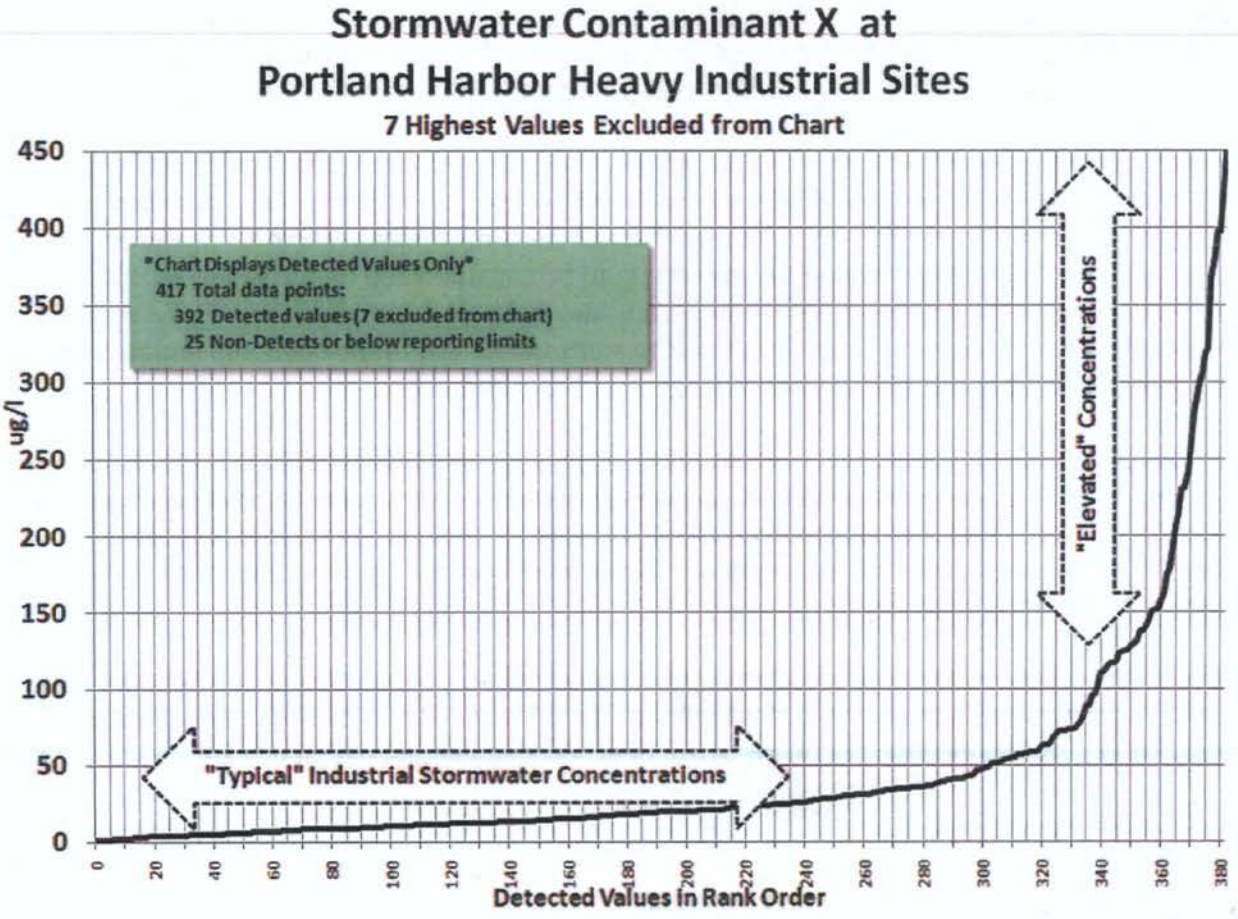
The charts were created using stormwater data from industrial sites in the Portland Harbor area of the Willamette River (River Mile 1.9 – 11.8). The largest single dataset was developed by the

Lower Willamette Group (LWG) in the course of their Round 3 sampling events for the Portland Harbor Remedial Investigation. This dataset includes stormwater data collected at 21 heavy industrial locations during 2007 and 2008. The rest of the data was submitted to DEQ by ECSI sites.

The charts present the stormwater data but do not specify the sample locations or methods. This information is only available in the original data reports. In almost all instances, stormwater samples were collected under a DEQ- or EPA-approved workplan. Both grab sample and composite sample data are included in the charts.

To create the charts, all of the detected values for a given contaminant were compiled and organized in rank order (i.e., lowest to highest concentration; charts include J-flagged/estimated values). The data were then plotted on a chart. The chart's X axis is the rank of each data point and the Y axis is the concentration. Information on the number of non-detected values for each contaminant is also provided on the chart.

An example of a typical chart for a stormwater contaminant is provided below. In most charts there is a definitive "knee" in the curve and the majority of data points fall within the relatively flat portion of the curve below the knee.



## 3.0 Screening Stormwater Data Using the Charts

The use of these charts as a screening tool is based on the assumption that the lower, flatter portion of the curve represents the contaminant concentration range that is typical of stormwater from Portland Harbor industrial sites. Consequently, when one or more contaminants are present at significantly higher concentrations (i.e., "elevated" concentrations represented by the steeper portion of the curve) it is an indicator that additional investigation and/or source control may be needed.

To evaluate stormwater data from a specific site, determine where the contaminant concentrations fall along the curve on the relevant chart.

- Concentrations falling within the **lower/flatter portion of the curve** suggest that stormwater discharges are not being unusually impacted by contaminants at the site and are therefore representative of "typical" industrial stormwater for Portland Harbor sites. However, this interpretation should not be considered to be a conclusive line of evidence. A determination that no additional source control or evaluation is necessary should be corroborated by other lines of evidence.

- Concentrations falling within the **upper/steeper portion of the curve** are an indication that uncontrolled contaminant sources may be present at the site and additional evaluation and/or source control measures may be warranted. The objective would be to determine the source(s) of the elevated concentrations and, based upon that, whether and what types of source control measures are needed.

## 4.0 Interpreting the Results

The screening results need to be evaluated based upon the characteristics of the site. Some sites can be expected to have higher concentrations of certain types of contaminants simply as a result of the type of operations (e.g., phthalates associated with painting activities, PAHs associated with heavy equipment and fueling). Slightly higher concentrations of specific contaminants might be considered to be "normal" at these sites but indicate potential contamination at others.

However, "normal" is not the same as acceptable. As stated above, these charts are used for identifying potentially contaminated sites and helping to guide source control evaluations. They are not designed to be used for evaluating the potential waterbody impacts of stormwater discharges.

An additional consideration when evaluating stormwater data is whether the data are likely to be representative of typical stormwater discharges from the site. Stormwater samples taken from the same location can show widely varying concentrations depending on the duration and intensity of the storm events that were sampled, whether the sample was collected early or late in the storm, the length of the dry period preceding the storms, and the activities occurring at the site since the previous storm event. This should be considered when determining how much weight to apply to stormwater data in the course of a stormwater evaluation and/or whether additional data is needed to support a decision.